

THE CHEMIST AND DRUGGIST

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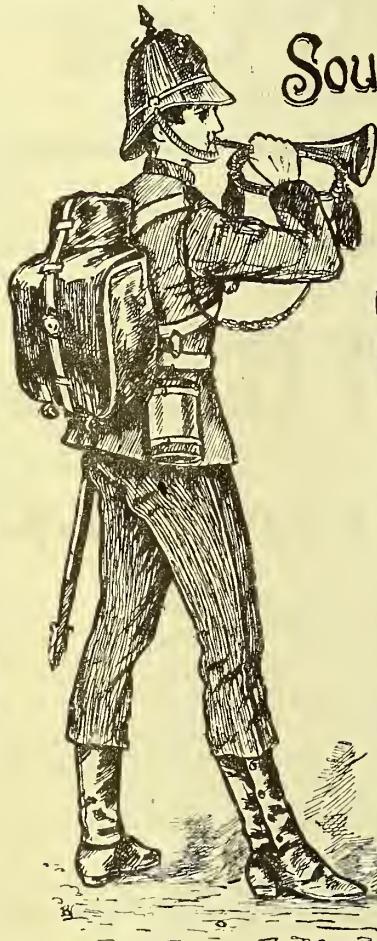
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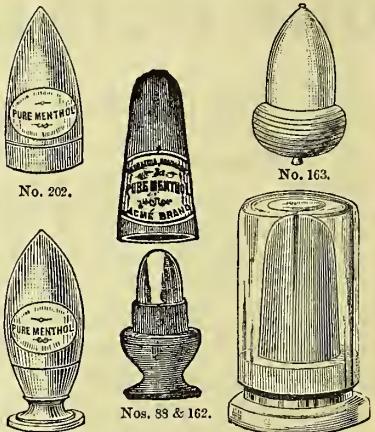
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Advertisements for this Supplement must be prepaid, and can be received at the Office, 42 Cannon Street, until 5 p.m. on Thursday afternoon, or by first post on Friday morning of each week.

Remittances payable to EDWARD HALSE, crossed MARTIN & CO. Stamps are taken in payment.

The Terms for Advertisements in this Supplement will be found printed under each heading.

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177/34.

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MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.,
CHEMISTS' TRANSFER AGENTS,

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1.—LONDON, S.E.—First-class Business; very old-established; returns nearly £800 yearly; net profits, £300; shop handsomely fitted; large house, all in good repair; offer wanted; part can be paid by instalments if wished.

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3.—LONDON, S.W.—Old-established good-class Business; shop handsomely fitted; returns nearly £750; can be largely extended; full prices; good house; new lease will be granted; price £600.

4.—LONDON, W.C.—Lock-up Business of high class; handsomely fitted shop; capital position; returns at present about £800; full prices; valuation terms can be arranged, or offer.

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8.—KENT.—Unopposed Business of good class; locality good and attractive; returns £800 yearly; good house; low rental; price £500.

9.—MONMOUTHSHIRE.—Old-established good-class Business; held by vendor nearly 30 years; returns average £550; good house, low rental, and well-stocked garden; price about £400; full particulars on application.

10.—SURREY.—Unopposed Business (country) of good class; returns last year over £500, with good profits, some dentistry included; comfortable house; good garden; locality attractive; price £275.

11.—WILTS.—Good town; Retail and Dispensing; held by vendor many years; returns nearly £600 yearly; good house, vendor's own; price about £550, or the freehold may be purchased if wished.

12.—NORFOLK.—Good town; old-established mixed Business for immediate transfer; returns about £1,000 yearly; capable of being largely extended; good house; rent £60; valuation only required.

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Proprietary Articles; well established; returns at present at the rate of over £1,200 yearly; profits, net, over 50 per cent.; anyone with capital will find this an exceptional opportunity; easily worked; about £600 required; full particulars in confidence; references must be enclosed.

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WANTED.—PARTNERSHIPS OR FIRST-CLASS DISPENSING BUSINESSES, EITHER IN LONDON OR GOOD PROVINCIAL TOWNS—PROFITS NOT UNDER £500 YEARLY.—CASH READY.

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Messrs. ORRIDGE & CO. invite communications from COLONIAL and FOREIGN firms, where business of a confidential nature requires the especial attention of a London agent.

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Chemists' Businesses, Partnerships, Openings, &c., London or Country, negotiated. Locum Tenens and Assistants supplied. Valuations, Investigations, &c., undertaken. Outstanding Accounts Collected.

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THE BRITISH AND COLONIAL AGENCY, LIMITED, 27 Margaret Street, Cavendish Square, London, W., are authorised to dispose of the following Chemists' Businesses:—

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Both are well worth attention. We have also many others.

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3s. 6d. for fifty words; 6d. for every 10 words beyond.

A RETAIL, Dispensing, and Prescribing Business, situated in a pleasant, healthy locality where a comfortable living may be got, with scope for increase; convenient house; Cheshire or surrounding counties preferred. Send full particulars (including lowest price) in confidence to "Statim," 30 Crane Street, Chester.

A GENUINE good Retail and Dispensing Business; about £1,000; Lancashire preferred. "Business," Clarendon Hotel, Fishergate Hill, Preston, Lancashire.

BUSINESSES FOR DISPOSAL.

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FOR DISPOSAL, on account of death of proprietor, in the centre of a large manufacturing town, an old-established Drug, Oil, and Drysalter Business, at valuation of stock and fixtures; will bear full investigation. Apply, G., care of Evans, Lescher & Webb, 60 Bartholomew Close, E.C.

MIDLANDS (South).—Old-established Light Retail, Prescribing, and Dispensing with good proprietaries; commanding shop, in best position; good house; returns £1,740; price about £1,300. F. J. Brett, 60 St. Stephen's Road, Leicester.

COLEFORD (Forest of Dean).—A Mixed Seed and Drug Business; returns last year £1,070; rent £32, with large garden attached; price £600; to be sold in consequence of the death of the proprietor. Address, D. Davies, Chemist, Coleford.

INLAND Health Resort.—Good Dispensing, Prescribing, and Retail Business with rapidly increasing Dental practice; established 12 years; about £850 required; rent made by letting; anyone prepared to take to furniture preferred. Particulars from J., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

£200, OR OFFER (immediately).—A genuine old-established Retail Business situate in the most populous part of Upper Sydenham; average weekly takings for last 5 years £5 10s. (all ready money); under efficient management must increase; full investigation solicited. Apply to J. H. Emery, 62 Wells Road, Sydenham.

TWO ready-money Businesses for disposal in a good manufacturing town in Yorkshire; the trade is chiefly small Retail and Prescribing, and very profitable; returns about £600; net profit over £200; rent £17 and £12 respectively; would be sold together or separately; £425 for both. Address, "Chemist," 6 Crayford Road, Tufnell Park, London, N.

PHARMACIE FRANCAISE; well situated in the West-End of London, and making a net profit of £500 a year; price £1,000. Principals only address, "Pharmacie," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

CAMBRIDGE.—£50 only for nicely fitted ready-money Prescribing and Light Retail Business in thickly populated neighbourhood; corner shop; low rent; good profits under manager; might be greatly increased by personal attention and extracting teeth; bargain; £100 a year at once. Particulars of G., 157 Queen Victoria Street, London, E.C.

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FOR immediate disposal (proprietor deceased), an old-established Business in the central part of a good market town in South Wales; wine and spirit business attached (sale chiefly in bottles); this department is separate, and can be sold separately if desired; purchaser should be able to speak Welsh; yearly returns £1,200; lease unexpired, 11 years to run; good house and commodious warehouses; rent £60. Apply, L. T. W., Wright, Layman & Umney, Southwark Street, London, S.E.

EMPLOYERS WANTING ASSISTANTS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

TRAVELLER wanted, having an extensive connection amongst Export Chemical Manufacturers and Druggists. Address, T. W. 374, Messrs. Deacon's, Leadenhall Street, E.C.

WANTED, a Traveller calling upon London Chemists, and holding other commissions, to represent a Manufacturer. Apply, by letter, to T., 18 Albert Road, Walthamstow.

WANTED immediately, a competent Invoice Clerk for the Wholesale Drug trade; must have good experience, quick at figures, and a smart penman. Address, "Chemicus," care of C. Birchall, Advertising Agent, Liverpool.

WANTED, a good General Assistant for the Drysalter counter; good references essential. Address, with particulars as to age, experience, salary, &c., Kay Brothers, Stockport.

WHOLESALE.—Wanted immediately, a Laboratory hand accustomed to make Citrate of Magnesia; preference given to a total abstainer. Apply, with full particulars of previous experience, &c., to W. C. H., care of Davies & Davies, 46 St. Mary's Axe, E.C.

MANAGER for Branch, not under 30 years of age; thoroughly well up to Dispensing, Prescribing, Tooth Drawing, and capable of working up a good trade in a good neighbourhood; send full particulars, references, age, if married, salary required; personal interview preferred; otherwise send recent photo. Fowler, Chemist, Southsea.

WANTED, a Junior for Light Retail, in the country; outdoors; very easy hours. Apply, giving usual particulars, to W. D. Sutton, Thame, Oxon.

A N ASSISTANT, accustomed to country business; salary £40; one seeking a permanency preferred. Apply, stating usual particulars. A vacancy also for an Apprentice. A. Anning, 34 Week Street, Maidstone.

C RIPP'S & CULLINAN, 155 King Street, Hammersmith, require an indoor Assistant at once; good Prescriber and able to take charge in absence of principals; knowledge of Photographic business desirable; good references indispensable; salary £40; only those desiring a permanency need apply.

IMEDIATELY.—Manager for Mixed business, Light Retail, Prescribing, &c.; about 28; able to extract teeth; single; abstainer seeking permanency preferred; must have undeniable references; salary £50; indoors. Apply, stating in full age, height, qualification, references, experience, when disengaged, enclosing carte, to Griffin, Chemist, Monument Road, Birmingham.

ASSISTANTS WANTING SITUATIONS.

1s. for twelve words; 6d. for every six words beyond.

AS IMPROVER; aged 18; 3½ years' experience. F. W. P., 37 Fore Street, Totnes.

JUNIOR; aged 21; 6 years' experience. 1 Brentwood Terrace, Warren Road, Torquay.

ASSISTANT; abstainer; aged 27; highest references. "Alpha," 15 Alexandra Road, Leyton, Essex.

AS TRAVELLER for a good house; home or the Colonies. P., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

JUNIOR, in London, with time to attend evening classes; aged 21. J. Lenton, 67 Eversfield Place, St. Leonards-on-Sea.

TO VETERINARY SURGEONS.—An Assitancy in country, by qualified man; aged 23. S., 48A Finchley New Road, London.

MANAGER or Assistant; married; aged 35; varied experience; good references; 13 years in last situation. "Alpha," 11 Hicks Road, Seaforth, Liverpool.

AS ASSISTANT; aged 25; height 5 feet 9 inches; disengaged; London or Liverpool preferred. "Statim," 12 Dynevor Place, Swansea.

MR. S. SMITH takes occasional Confidential Charge during absence, illness, or transfer; distance no consequence. Address, S. Smith, 76 Devonshire Street, Bridgwater.

LOCUM TENENS; competent, reliable, obliging; Minor; dentist; highest references; 15 years' experience; disengaged. "Chemist," 5 Park Valley, Nottingham.

ASSISTANT; outdoors preferred; unexceptionable references (West-end), &c.; aged 28. R. M., 342 King's Road, S.W.

AS MANAGER of Branch (25); married; thoroughly experienced; abstainer; good references. A. R., 79 Grosvenor Street, Cheetham Street, Manchester.

SI TATION as Resident Dispenser (qualified), Manager of Retail, or similar position; advertiser has occupied the post of Dispenser to an important Dublin dispensary as Locum Tenens on several occasions; 17 years' experience; extract teeth and counter prescribe. Address, J. R. Elliott, Pharmaceutical Chemist, 39 Parkgate Street, Dublin.

TO CHEMISTS.—A Young Englishman desires a situation as Assistant in the Laboratory of a Manufacturing or of an Analytical Chemist; advertiser is Ph.D. (Leipsic) and Medallist in Chemistry of an English University; excellent references respecting competency and character; abroad or home. Address, "Ph.D." care of C. Mitchell & Co., Advertising Agents, Red Lion Court, Fleet Street, London.

AN AUSTRIAN Gentleman (doctor of chemistry and philosophy), who has had considerable experience as Manager of Commercial Laboratories (sugar, glucose, &c.), and has a thorough practical knowledge of other branches of chemistry, desires engagement in England or abroad. "Austria," care of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

APPRENTICESHIP.

WANTED, to Apprentice a youth aged 17 for 3 years to a Chemist near London; has passed the Arts examination; premium must be moderate. Address, R. S., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MISCELLANEOUS.

Special charges are made for Advertisements under this heading, which can be obtained on application.

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AGENTS wanted for "Dr. Birley's Anti-Catarrh" and "Baby's Blessing"; exceptionally favourable terms to special agents. Write to-day for particulars to E. Birley & Co., 1 Cecil Street, Strand, London, W.C.

WANTED, use of room in good position, London suburbs or country town, by old-established Dentist; most skilful operator; highest testimonials for skill, attention; moderate fees in mechanical work. Particulars, rent, Mr. Woodman, Dentist, Marquess Road, Canonbury.

MANUFACTURER of Invalid Foods is open to take Agency for similar goods, or articles required by invalids; or would work an article for the proprietor; stri test confidence (if desired). 84/61, THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

TO CHEMISTS FITTING UP.—Magnificent Wall Case, with glass-cased mahogany lockers underneath (Maw's fig. A 86); handsome Window Enclosure; Counter and Dispensing Screen (Maw's fig. 56 and 70A); Mahogany Shelving and Pilasters; Cupboards, &c. 47 Church Street, Camberwell. Particulars of H., 4 Stratford Road, Kensington.

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ALTERATION IN PRICES.—Retail 1s. 1½d., per dozen 10s. 6d., Nett 8s. 11½d.; Retail 2s. 9d., per dozen 28s., Nett 23s. 11½d. Please alter in our new Price Current. **J. SANGER & SONS**, 489 Oxford Street, London.

PRELIMINARY AND MINOR.

ALL STUDENTS who are preparing should send for particulars of a method of study which will enable them to pass with ease. Enclose stamped envelope to Mr. J. Tully (Hills Prizeman), Chemist, Hastings. Established 1872. References to past and present Pupils. 32 Pupils passed the last Examinations.

A VALUABLE SPECIAL AGENCY.

DR. BIRLEY'S PREPARATIONS.—Large and Ready Sales. —48 page Pamphlets, gold covers, show-cards, &c., free; write to-day for samples. Gordon Murray & Co., 17 Castle Street, Holborn, London. Sole agents for Great Britain and India. "Baby's Blessing" and "Anti-Catarrh" may also be had.

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PRELIMINARY.—Arithmetic and Metric System, 1s. How to Write an Essay, 3d. Cæsar Simplified, 1s. Knotty Points in Latin Grammar, 1s. 6d. **MINOR.**—Equations Simplified, 1s. Illegible Autographic Prescriptions, 1s. Notes on Dispensing, 1s. Prescriptions given at the Minor, 6d. "Chemist," care of Mr. J. Edwards, Wye, Kent.

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ANALYTICAL, VACUUM, AND BULLION BALANCES.

Wolters' Improved Short-Beamed Analytical Balance,

A SPECIALITY. Assay and other Weights of every Description Made to Order. Balances for Exportation.

55 Up. Marylebone Street, Portland Place, London, W.

EXCHANGE COLUMN.

Limited to the Advertisement of Surplus Stock, Formulæ, Addresses Wanted, and Articles Wanted.

TERMS.

No Advertisement inserted in this section for less than Sixpence.

Advertisements in this department must be paid for in advance. From this rule no deviation can be made. Insertions are charged at the rate of ½d. per word, provided the advertiser attaches his name and address, for each word of which he must also pay at the same rate: or if he pays 1d. per word, his name and address will be registered and a figure attached to his advertisement. All correspondence referring to that figure must be addressed to "The Publisher of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.", and the figure must be distinctly endorsed upon the envelope. Letters will then be forwarded to their proper destination. A price is counted as one word, as e.g., £1 10s. 6d.

DEPOSIT OF MONEY.—In order to ensure safety we offer the following system:—The purchaser of anything advertised in the Exchange Column may remit the amount to us. We acknowledge receipt to both parties by post cards, and only pay the money deposited on the advice of the remitter. Whether returned to him or paid to the seller, we charge a commission of 6d. on any transaction of £3 or less, or 1s. if above that amount.

Remittances payable to EDWARD HALSE.

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Dental.

Set 12 tooth forceps in leather case, never used, 40s.; cost nearly double. Gibson, Chemist, Fleetwood.

Optical.

Splendid spectroscope prism, only 15s. Gibson, Chemist Fleetwood.

Proprietary Articles.

Coleman's extract meat and malt wine, 18 doz. small, 6d. doz. large size: what offers? 212/20. Maria Feil drops, Eru's essence horhound, Woolley's caudry, half retail. Fowler, Portsea.

Drugs and Chemicals.

Tin glycerine, 1260. 7d. lb.; 4 lbs. gum benzoin, 1s. 3d. lb.; ½ lb. iodoform, 15s. lb.; 3 lbs. potass. iodid, 9s. 6d. lb.; 2 lbs. oil mint, good, 12s. lb. J. C. Lingdale in Cleveland. Best hard Tukey opium, lost 20 per cent. moisture, excellent f'r tincture or powder, 16s. Brown, Amphyll. Carriage free.

Literature.

Pharmaceutical Journals, bound, 1842 to 1856, 1874 to 1879; "Year-book of Pharmacy," 1870 to 1879; offers wanted. Lockyer Bros., Evelyn Street, Deptford, S.E.

"Familiar Wild Flowers," first series, strongly bound, half calf, 5s.; 10 parts of "Garden Flowers" (41 to 50), 2s. 6d. T. H., 12 Cannonbury Place, Islington, N.

Quain's "Dictionary of Medicine," new, in six parts, cost 30s.; Nichol's "Esoteric Anthropology," 5s.; Coleland's "Physiology," 2s. 6d.; Nichol's "Human Physiology," the Basis of Social and Sanitary Science," 6s.: what offers? Peet's "Principles and Practice of Medicine," 590 pages, and Ruddock's "Homeopathic Vade Mecum," 820 pages, for 5s. each. Hinkley, Victoria Road, Scacombe, Cheshire.

Soda-water Machinery.

Baruetti soda-water machine, 2-gallon cylinder, all fittings and gauges; at one-fourth, Barnett's price. Seen at 12 Square Road, Halifax.

Shop Fittings.

New Wedgwood mortar and pestle, 10 pints, as fig. 37 Maw's list, 9s. C. Ramsden, 39 Goldsmith Street, Nottingham.

Set of gramme weights in case, beautifully finished, never been used; also one of Maw's wire sponge show-cases N. B. Jevons, Market Rasen.

Entire fittings of branch shop, including hottles, plate-glass shelves, window fittings, lamp, &c., equal to new. "Horue," care of Ayerton & Saunders, Liverpool.

Mahogany counter, 14 ft. with moulded mahogany-panelled front, 5d.; dispensing-screen and case, counter, &c., 5l.; offers. H., 4 Stratford Road, Kensington.

Excellent new mahogany materia medica case. Apply. Sharman, 97 High Street, Bedford.

Alho-carbon Gas Fittings—3 ½ light cluster pendants, modern pattern, to be sold; give brilliant illumination and very economical; cost 6s. each; price 10s. for 3, or 37s. 10s. each: removed to make room for electric lighting. Address, B. & Co., 157b New Bond Street, London, W.

Glass Bottles.—Job lines.—About 10 gross each 3-oz. white, opal, and turquoise blue pomades, screw nickel-capped, 18s. per gross; 10 gross 4-oz. ditto. 20s.; 12 gross 6-dr. oval essences, 4s.; 6 gross 10-oz. Kahn, with boxwood-topped corks, 18s.; 4 gross 4-oz. eau de Cologne, 10s.; 20 gross stoppered smelling salts, same shape as Godfrey's, 24s.; 10 gross each 1, 2, and 3-oz. turquoise covered pots, 16s., 20s., and 25s. per gross respectively; all best quality; sample of either kind post free 4 stamps or of each line 18 stamps. Address, Hearu, 381-3 Kingsland Road, London.

Formulæ.

Send for my list of recipes, cheap and reliable. "Chemist," Edwards, Wye.

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Enterprise tincture-press, Cartner's pill-coater, both as good as new, little used; Cooley's "Encyclopædia," Squire's "Companion," D. P. B. Martindale's "Extra Pharmacopœia," Pharmaceutical Journal in half calf; no reasonable offer refused; exchange or otherwise. Breary, Douglas, Isle of Man.

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"Year-book of Pharmacy," 1883. Price, postage paid, to "Alpha," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

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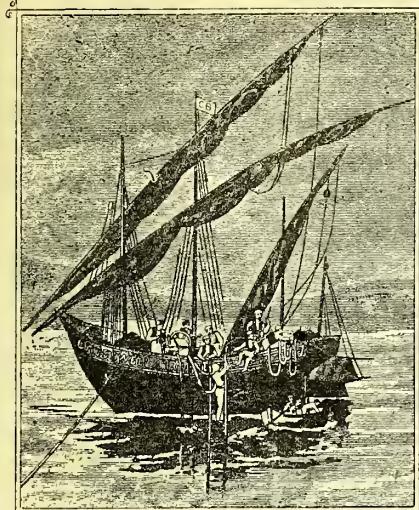
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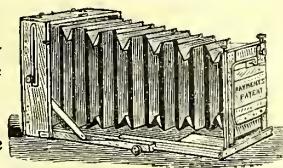
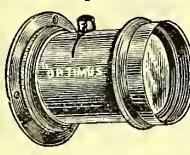
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*Society of Arts, Paris,
1883.*

The difference between preparations made from Hay's Essences and those made from the numerous spurious imitations of them bearing the name of Soluble Essences is most marked, and no manufacturer using the latter can compete with one using Hay's Preparations, as is universally known.



HAY'S SOLUBLE ESSENCE OF JAMAICA GINGER.

A Pure Essence of the Finest Ginger, perfectly free from Capsicum. Highly adapted for the manufacture of Transparent Aerated Waters, and for all Dietetic, Medicinal, and Pharmaceutical purposes. Trade Price, 5s. per lb.; 12 lbs. and upwards, 4s. 6d.

HAY'S COMPOUND FORTIFIED ESSENCE OF JAMAICA GINGER. FOR FIRST QUALITY GINGER ALE.

Specially prepared for the manufacture of the very Finest Ginger Ale made, is an addition of Vanilla, Lemon, and other flavours to the above. It imparts, with the exquisite Ginger Aroma of the above-mentioned Essence, a peculiarly fine fruity flavour, combined with the fullest amount of fragrance and pungency. Trade Price, 5s. 6d. per lb.; 12 lbs. and upwards, 5s. Quantity required, five fluid ozs. to each gallon of Syrup, making 106 10-oz. bottles.

HAY'S GINGER ALE EXTRACT. FOR SECOND QUALITY GINGER ALE.

This Extract is strongly recommended for the manufacture of Ginger Ale, to which it imparts Pungency, Colouring, great Brilliance, and an unusually Fine Ginger Flavour and Aroma, and makes a thoroughly good article. Trade Price, 4s. 6d. per lb.; 12 lbs. and upwards, 4s. Quantity required, three fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

HAY'S GINGER ALE ESSENCE. Highly Concentrated. FOR THIRD QUALITY GINGER ALE.

This Essence, which is a complete Bouquet of Flavours in a highly concentrated state, makes a Ginger Ale possessing an amount of aroma, flavour and quality that will be sure to command a large sale, and that is unsurpassed by the so-called finest Belfast Ginger Ale. Trade Price, 9s. per lb.; 12 lbs. and upwards, 8s. 6d. Quantity required, half a fluid oz. to each gallon of Syrup, making 106 10-oz. Bottles. This Essence will be found most valuable to the general trade.

HAY'S GINGER CHAMPAGNE ESSENCE.

For the manufacture of Ginger Champagne. This Essence is a combination of the finest flavours, and imparts with the Ginger a most exquisite aroma, making a most delicious and refreshing approximation to Champagne. Trade Price, 8s. per lb.; 12 lbs. and upwards, 7s. 6d. Quantity required, ten fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS.

A magnificent Preparation, perfectly soluble, and makes the finest Lemonade obtainable. Trade Price, 8s. 6d. per lb.; 12 lbs. and upwards, 8s. "Added in the proportion of one fluid oz. to each gallon of Syrup, the Soluble Essence imparts the most delicious flavour of the Lemon."—*The Chemist's Journal.*

HAY'S LEMON FLAVOUR.

Perfectly soluble. Trade Price, 5s. per lb.; 12 lbs. and upwards, 4s. 6d. Quantity required, one and a half fluid oz. to each gallon of Syrup, making 106 10-oz. Bottles.

HAY'S HOP ALE ESSENCE.

This Essence is made from the Choicest Hops grown, and is unrivalled for its peculiarly fine Hop flavour and aroma. Hop Ale made from this Essence has the full flavour of the finest Hops, and is a really appetising Bitter Beer. Trade price, 8s. 6d. per lb.; 12 lbs. and upwards, 8s. Quantity required, two fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

**W. HAY, MANUFACTURING CHEMIST,
BEVERLEY ROAD, HULL, ENGLAND.**

Indentors, to prevent disappointment, should specify that the Goods are to be of HAY'S MANUFACTURE.

W. HAY CAUTIONS THE TRADE against the use of those spurious so-called SOLUBLE ESSENCES which, besides having NO GINGER AROMA, are FLAVOURLESS, RANK, and DISAGREEABLE, and are little more than TINCTURES OF CAPSICUM.

Telephone Number,
1852.

Advertisers' & Buyers' Reference List, AND INDEX TO ADVERTISEMENTS.

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CHEMICUS
LONDON.

ADVERTISEMENTS APPEARING IN THIS ISSUE OF "THE CHEMIST AND DRUGGIST."

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This arrangement is necessary in order to meet the requirements of the Post Office.**

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Barnett and Co. (Woodhead
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Carter, H. W., & Co. (Ginger
Ale Essence)
Chemists' Abrated Waters
Association
Durrant, Geo. & Co.
Ellis (Ruthin)
Hassall and Co. (Citric Acid,
Phosphate)
Hay, W. (Hop Ale Essence)
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Roberts (Paris, &c.)
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Lewis, H. K.
Southall Bros. & Barclay

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ELASTIC Burton-Bage and Co. (Twen- low's) Devonport (Brown's) Towle, A. P.	COFFEE Symington and Co. (Coffee Essence)	MEAT Allen and Hanbury's Burroughs, Wellcome and Co. ("Kepler") Drysdale and Co. (Dry) Poates (Dr. Linck's)	MARSHALINES Bates and Co. Bishop, A. Bush, W., and Co. Evans, Sons Wright, Layman and Umney
ELASTIC Burton-Bage and Co. (Twen- low's) Devonport (Brown's) Towle, A. P.	COOKING Elmwood	MEAT Allen and Hanbury's Burroughs, Wellcome and Co. ("Kepler") Drysdale and Co. (Dry) Poates (Dr. Linck's)	MARSHALINES Bates and Co. Bishop, A. Bush, W., and Co. Evans, Sons Wright, Layman and Umney
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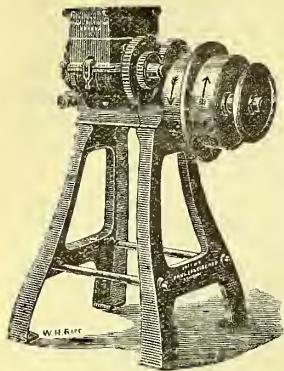
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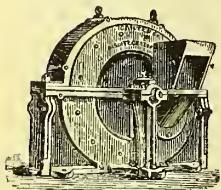
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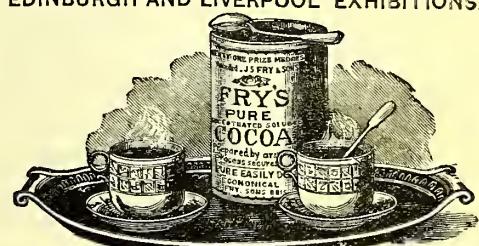
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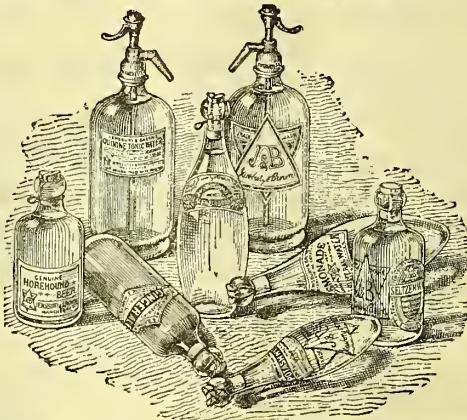
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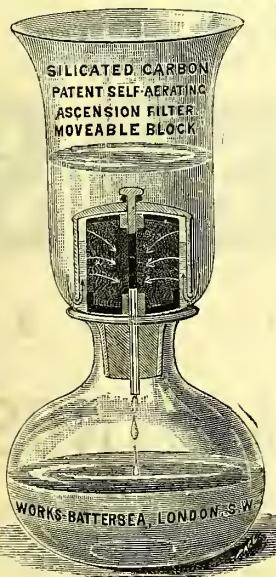
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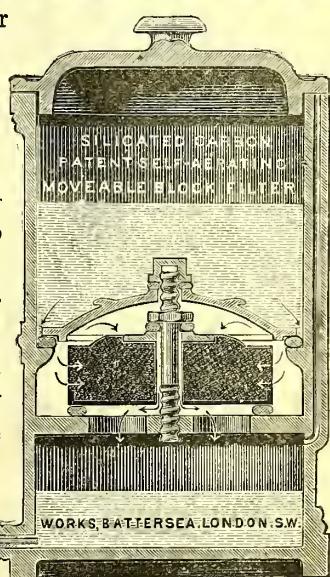
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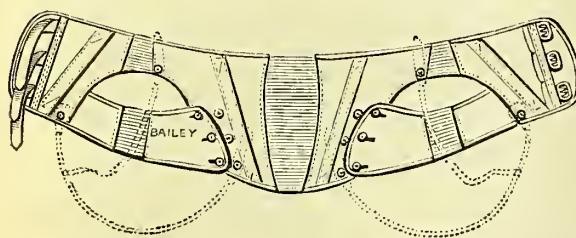
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This is emollient, protective, and healing. It supplies the skin with a "cream" natural to it, and is highly praised for abrasions, mucous patches, herpes, chapped hands, roughness and hardness, &c.

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STROPHANTHUS TINCTURE.*[Reprinted from the LANCET, March 26th, 1887.]*

FEW drugs have sprung more rapidly into favour than the African arrow-poison Strophanthus. It was introduced to the notice of the profession by the distinguished pharmacologist Dr. T. R. Fraser, Professor of Materia Medica in the University of Edinburgh, who for fifteen years laboriously investigated its action both on man and the lower animals. It is now recognised as being not only a powerful heart tonic, but a most active diuretic. For a long time a difficulty was experienced in obtaining a thoroughly trustworthy preparation, but Messrs. Burroughs, Wellcome & Co. have recently made a 1 in 20 alcoholic solution which answers every purpose. This new tincture has been submitted to Prof. Fraser, who, after a careful examination and subjecting it to various tests, found that it answered his requirements. The dose is from two to ten minimis, and no hesitation need be felt in pushing it in suitable cases. It is made on a very large scale, some hundred-weight or more being manipulated at a time, so that absolute uniformity of product can be guaranteed. The seeds alone are used, the husk and other parts being rejected. We have examined a specimen of the crude drug from which it is prepared, and have no hesitation in saying that it is the true species. The price of the tincture has been recently reduced, so that there is every prospect of its commanding a very extensive trial.

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See "CHEMIST AND DRUGGIST," December 15th, 1874.

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WE have now over a thousand *bond-fide* subscribers in Australia—that is to say, a very large majority of the chemists established there. To all of these we supply THE CHEMIST AND DRUGGIST and THE CHEMISTS' AND DRUGGISTS' DIARY from London, and *The Chemist and Druggist of Australasia* from our Melbourne office. British chemists interested in Australasian pharmaceutical affairs can subscribe for the latter publication through this office at the rate of 5s. per annum.

DIARY FOR NEXT WEEK.

Tuesday, April 26.

Royal Institution, at 3 P.M. Alteration.—Professor W. E. Ayrton, F.R.S., instead of Dr. Hopkinson, (unwell) on "Electricity."

Thursday, April 28.

Royal Institution, at 3 P.M. Professor Dewar, on "The Chemistry of the Organic World."

Friday, April 29.

Royal Institution, at 9 P.M. Professor H. S. Hele Shaw, on "The Rolling Contact of Bodies."

Saturday, April 30.

Royal Institution, at 3 P.M. Dr. R. Von Lendenfeld, on "The Australian Alps and the Origin of the Australian Fauna."

THE PHARMACY ACT AMENDMENT BILL.—This Bill appeared in the orders of the House of Commons on Tuesday and Wednesday, with the object of resuming the debate on the motion for going into committee. On Tuesday, as the House was counted out at 10.40, it was not reached at all; on Wednesday it did not come on till after a quarter to six, and it being blocked, nothing could of course be done. It will appear in the orders again on Monday next, but as that evening will be devoted to the business of Supply, it is not likely to be taken before 12.30, when the rule as to opposed business comes into force, so that further delay is almost inevitable.

AT a meeting of chemists held at Sheffield, an almost unanimous resolution in favour of the Pharmacy Acts Amendment Bill was passed. At a meeting at Glasgow, a resolution in the other direction was agreed to.

AT Boston, U. S., an interesting jubilee of Mr. Theodore Metcalfe's association with pharmacy has been celebrated by a banquet, at which the famous Dr. Oliver Wendell Holmes, the "autocrat of the breakfast table," made a characteristic speech (reported on page 494).

POST-CARD COMPETITION—No. 10.

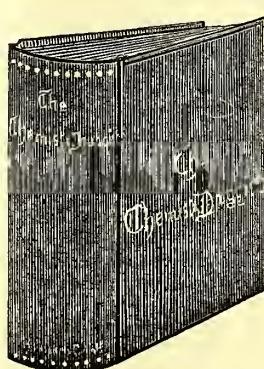
RECTIFICATION.

WE erroneously stated last week that there are twenty candidates for the Pharmaceutical Council, and in announcing a competition we asked for six names of candidates to be marked out. In writing the paragraph we inadvertently overlooked the fact that Mr. Borland had declined to stand, and we should have mentioned that there are nineteen candidates, and that we only ask for five names on the post-cards as those of candidates to be omitted.

We will strike out from the cards already sent us the last name given, and any competitor who may be dissatisfied with his list as it then stands is at liberty to send us another card; he will thus have two chances. But other competitors must only send us one card each. We receive cards until April 30, but shall not include any that reach us after that date. The list of candidates is as follows:—

Atkins, Samuel Ralph, Salisbury	Neve, Francis Charles, St. Leonards
Baldwin, Henry Belys, Edinburgh	Newsholme, G. T. Wilkinson, Shetfield
Batt, Edward Northway, London	Richardson, John G. F., Leicester
Carteighe, Michael, London	Robbins, John, London
Cross, William Gowen, Shrewsbury	Savage, William Dawson, Brighton
Evans, Gwilym, Llanelli	Southall, Alfred, Birmingham
Hampson, Robert, London	Synes, Charles, Liverpool
Harrison, John, Sunderland	Watt, James, Haddington
Hills, Walter, Loudon	Williams, John, London
Martin, Nicholas Henry, Newcastle	

And we want on post-cards the five names which the competitor considers should be struck through.



THE reading cases which we offer to subscribers are now used by a very large number of chemists, and are found very convenient. They keep together thirteen numbers in very tidy form, always ready for reference. By having two cases in hand the numbers of a complete volume are always available until the time comes for binding. We sell these cases at the office for 1s., or by parcels post 1s. 3d., or two for 2s. 3d. We cannot forward them to any house for enclosure, nor by any of the carriers, as in the latter case we have to pay for booking.

ADVERTISEMENTS of employers and assistants can now be received by us up to the first post on Friday mornings, and will be inserted in the current week's issue.

Metropolitan Reports.

ENTERTAINMENT.—On Saturday evening last an entertainment was arranged at the Wandsworth Town Hall by the employées and employés engaged at Messrs. Burroughs, Wellcome & Co.'s factory. An elegant supper followed an early concert, and was succeeded by a couple of hours of pleasant dancing. Mr. and Mrs. S. M. Burroughs and a number of friends were present, the company numbering in all about 150. The entertainment was provided by the firm and gave much pleasure.

THE PHARMACY AS AN ART GALLERY.—In last Saturday's *The Independent* there is a weird story entitled "A Legend of Amsterdam," apparently founded on Tenier's great picture, "De Chemicus." Messrs. Windle & Co. have a copy of this among other pictures of a kindred nature at their establishment, 452 Edgware Road. The scene is the chemist's laboratory, and the chemist himself, the central figure in the picturé, is deep in the study of the mysteries of the science, whilst in the background his assistants are conducting the mechanical operations involved in the practical work of the scientist. Demeir's "Alchymist," showing the hoary-headed Friar Roger Bacon; and another, of which Basil Valentine is the subject, are also in this pharmaceutical art gallery. The pictures, which are painted on glass, are used as screens. The idea is an excellent one, and appears to be appreciated by the visitors to the establishment.

SUICIDE OF A CHEMIST.—Mr. Charles Brooks, chemist and druggist, lately carrying on business at 355 Wandsworth Road, committed suicide on Thursday, April 14, by taking prussic acid. The deceased, who was only thirty-six years of age, had for some time been in pecuniary difficulties, and a few days before his death the whole of his household effects were seized under a bill of sale, in consequence of which his wife and two children had gone to live with her mother. On Thursday morning he was found lying in the back kitchen, fully dressed and quite dead, a bottle and measure-glass being by his side, both of which had contained prussic acid. An inquest was held on Monday evening, when Mr. T. J. Peabody, a builder, residing at No. 1 Southville, deposed to finding the body on Thursday morning on a bed on the floor, as described. A blue phial and a measure-glass were found on the window-hoard in the kitchen, close to where the deceased was lying. Mr. Thomas Brodrrib Weston, surgeon, in practice at 337 Wandsworth Road, stated that he was called to the deceased, who, he found, had been dead two or three hours. The bottle and glass (produced) were shown to witness. The former contained hydrocyanic acid and the glass also contained two or three drops of the same poison. Witness had no doubt that death was due to poisoning by prussic acid, self-administered. Verdict: "Suicide while in a state of mental derangement."

DEATH OF A CHEMIST: ALLEGED NEGLECT OF WORKHOUSE OFFICIALS.—At the Islington Coroner's Court, on Saturday, Dr. G. Danford Thomas held an inquest concerning the death of Henry Charles West, forty-five years old, a chemist's assistant. [Deceased was registered as a chemist and druggist in business before August 1, 1868.] The evidence showed that the deceased, who was a sober, well-conducted man, came to London from Deal over a year ago, to act as an assistant to a chemist at Poplar, but lately, as he was in an advanced stage of consumption, he was unable to work constantly. He, however, occasionally assisted Mr. Thomas Simnett, chemist, 70 Chapel Street, Clerkenwell, who some seven weeks ago called in Dr. W. Bladon Richards, 329 Goswell Road, to see him. As the deceased was very ill and without means, this doctor advised him to go into the workhouse infirmary. On March 2 the deceased was admitted into that infirmary as a patient suffering from "cardiac disease"; but Mr. Simnett, who twice visited him, said the card affixed to West's bed indicated that he was being treated for an "alleged cough." He was there a week, and was then transferred to the convalescent ward for two days, and then removed to the main workhouse building and set to work. On Sunday, March 13, when Mr. Simnett last visited him, the deceased said the doctor considered he was not bad enough to remain in the infirmary, and hence his removal. He complained of his food not being such as he

could take, and that, besides being set to oakum-picking, he had been obliged to join other inmates in pulling a big iron roller over a garden-path for half an hour, and this "completely knocked him up." On Monday, March 14, the deceased discharged himself and returned to his old lodgings in Parkfield Street, looking very weak and ill. To Mrs. Pritchard, his landlady, he said, "I have come home to you. I could not stay where I have been. I would rather die in the gutter than stay there." Dr. Richards described the deceased as extremely emaciated; and, after detailing the results of the post-mortem examination, attributed death to exhaustion whilst the deceased was suffering from consumption of the lungs and effusion of serum on the brain. The jury returned a verdict accordingly, to which, however, they appended a rider, calling the attention of the board of guardians to the circumstances of the case in order that in future more careful diagnoses of such cases might be made before they were discharged from the infirmary.

CHEMISTS' ASSISTANTS' ASSOCIATION.—The last scientific meeting of the session was held on Wednesday, Mr. H. H. Millhouse, president, in the chair. There was a small attendance. Mr. T. S. Dymond read a paper on "The substitutes for quinine." The paper was long, but the subject was handled in an able manner, and the essayist succeeded in leading his audience through a maze of organic formulae, apparently with good results to them. The substances dealt with were resorcin, hydroquinone, antifibrin, quinoline, kairin, thallin, antipyprin, and antithermin. Salicylic acid, quinine, and aconite were also mentioned in one part of the paper, so as to compare them with those named. The essayist first considered the chemical relations and constitution of the various bodies. Starting with benzene, he showed on the blackboard its rational formula on the basis of the closed chain, and so he continued with the others, using this diagrammatic representation, suitably modified, to illustrate the series of bodies allied thereto—viz. pyrocatechin, resorcin, hydroquinone, salicylic acid, antifibrin, &c. This demonstration conveyed a vivid impression of the close relationship of these antiseptic and antipyretic bodies, as well as the ease with which, from a theoretical point of view, a complex organic substance may be built up. Mr. Dymond next proceeded to tell how the bodies are prepared, after which the third part of the paper (dealing with characters and tests) was entered upon, and in connection therewith he showed specimens from the Pharmaceutical Society's museum of most of the substances mentioned. Antithermin, the latest antipyretic, was, however, conspicuous for its absence, it not yet having reached this country. Proceeding, the essayist, in speaking of the physiological action of the quinine substitutes, made some thoughtful remarks on the relation between chemical constitution and physiological action. For example, isomorphous salts have an identical action, well illustrated in the case of salts of calcium, strontium, and barium, all of which paralyse the ventricles of the heart to a degree proportionate with their molecular weight. The work of Crum-Brown, Fraser, Lauder Brunton, and Cash was referred to, which, he said, goes to prove that the chemical constitution of a substance, or of a series of nearly allied substances, bears some relation to their physiological action. The prominent features of fevers having been briefly referred to, the essayist proceeded to discuss the action of the remedies in counteracting them, and concluded his paper with a description of the medicinal uses of the remedies, and their relative value, quinine receiving the palm for general excellence, it possessing the properties of all the new comers which have been put forward as substitutes for it, while they lack certain virtues which quinine has, and possess faults which it has not. In the course of a short discussion of the paper, Mr. Saul suggested that piperon and lantanine were substances which might have been described, both having been put forward with considerable emphasis as quinine substitutes. He stated that thallin is now administered to adults in 3-grain doses every hour, instead of the larger doses which were formerly given, and also mentioned that antifibrin gives a green coloration with gold chloride and silver nitrate, as well as with ferric chloride. This antipyretic was, he understood, superior to antipyprin. Mr. Blackham also spoke, and criticised some remarks made by Mr. Dymond regarding antiseptics and disinfectants. The President having complimented the essayist on the success of his communication, Mr. Dymond replied. This was all the business of importance.

Provincial Reports.

Items of news, and newspapers containing matters of interest to the trade, sent to the Editor, will much oblige.

BELFAST.

FIRE.—Last Saturday evening a fire occurred on the premises of Messrs. W. H. Bell & Co., dispensing chemists, 25 North Street. The damage done was comparatively slight.

BIRMINGHAM.

THE SECRETARY'S COATS.—Henry Foster has been committed to the sessions on a charge of stealing two coats from the office of Mr. W. F. Haydon, the secretary of the trade association.

ONLY HALF-A-CROWN.—Robert Fletcher, an assistant to Rowland Campion, drysalter, 166 Deritend, has been sentenced to two months' hard labour for "borrowing" half-a-crown from his employer's till.

BAD TIMES.—Mr. J. Riley, chemist and surgeons' *locum tenens*, has closed his branch establishment, Potter's Hill, Victoria Road, Aston, and has transferred the stock, fixtures, &c., to 53 New Street, Aston New Town.

BETTER PROSPECTS.—Mr. William Merry, for many years manager to Mrs. Francis Williams, oil merchant, &c., Broad Street, has commenced business for himself at 75 Suffolk Street, as "T. Merry & Co., drysalters, oil merchants, &c."

DRYSLALTERS AND JURY SERVICE.—Mr. Joseph Gilman, described as a drysalter, but registered as a chemist and druggist, in business before August 1868, has been fined 10s. for failing to act as a jurymen when called upon. He claimed exemption because he was a chemist.

BRADFORD.

A CHEMIST'S APPRENTICE IN TROUBLE.—On April 15, Arthur William Syme (aged nineteen), described as a chemist, of Guiseley, was charged with stealing a half-crown, the property of Henry Wright, chemist, of Bridge Street. The Chief Constable stated that the prisoner had been apprenticed to Mr. Wright. For some time past the prosecutor had missed money, and on Thursday he went out and gave a person 4s., and got him to go into the shop to make some purchases. The person did so, and the prosecutor then returned to his shop, and found that 2s. 6d. out of the 4s. was missing. He asked the young man where the money was, and told him that 4s. had been spent. The prisoner tried to get away from the shop, and turned out his money, but not the half-crown, which was, however, dropped by him after a police-officer had been sent for. The prosecutor was called, and said he did not wish to press the case. The prisoner, who pleaded guilty, was fined 40s. and costs, or twenty-one days' imprisonment with hard labour.

CARDIFF.

A CHEMIST BEATS HIS WIFE.—At the Cardiff Police Court, on Tuesday, Emily Taylor, of ladylike appearance, summoned her husband, Alfred Taylor, chemist, of Cardiff, for assaulting and beating her on the 14th inst. The evidence of Mrs. Taylor was of a most painful character, and showed that prisoner had exercised persistent and premeditated cruelty towards her. He was before the magistrates a short time ago for neglecting to maintain his wife and children, and the Bench, after severely censuring him, ordered him to contribute towards their maintenance. Mrs. Taylor said that afterwards his behaviour was kinder, but lately he had become very cruel. He was often beating her, and his language was frightful. "My little children," tearfully remarked the complainant, "are imitating him, and I think it would be better if you could give me a separation." Asked what he had to say, prisoner made an elaborate defence, in which he accused his wife of not attending to her housewifely duties. The Bench, in sentencing prisoner, said that they had concluded to give him one more chance. For the present offence he

would be imprisoned for one month, and if, after he came out, his conduct was not altered, they would make an order for a judicial separation.

CHESTER.

ARTIFICIAL MANURES.—IMPORTANT CASE.—At the Chester County Court on April 15, Owen Riley (trading as the Runcorn Bone Works Company) sued Joseph Evans, farmer, Caughall, for 35l., being the value of 112 bags of black sulphate of dissolved bones. The defendant had paid 21l. into Court, alleging that that amount was the full value of the manure supplied. The case for the plaintiff was that in November, 1885, plaintiff's traveller met defendant, who asked to be supplied with some manure to force his crops. He wished the manure to have immediate effect, and be cheap, as he was going to leave his farm. The traveller recommended black sulphate, and defendant wished it invoiced to him as dissolved bones, because he would try for compensation from his landlord, and he could not get compensation if only black sulphate was used. The traveller replied that he could not make out the bill for dissolved bones when it was in reality black sulphate. He told him, however, he could make a mixture of dissolved bones and black sulphate, and make out the bill as dissolved bones, that being the usual custom in such cases. That mixture was in the proportion of 6 cwt. of bones to 14 cwt. of black sulphate. The bargain was struck for 112 bags at 6l. per ton, making a total of 36l., and these were delivered to the defendant. When asked for payment, defendant said he had got the stuff analysed, and it was not what it purported to be, and he refused to pay the bill, offering only 3l. 10s. a ton, instead of 6l., which was declined. For the defence it was contended that the stuff was not black sulphate, and did not contain anything like the right quantity of ammonia, there being only 3½ per cent. instead of 10 or 12 per cent., as promised. In fact, it was only a mixture of soot and charcoal, with a proportion of fat. It was not only practically valueless as a manure, but contained ingredients positively injurious to vegetable life. No importance could be attached to getting the stuff invoiced as dissolved bones, because by the arrangement the defendant made with his landlord he had no reason to claim compensation. His Honour, in giving judgment, alluded to the alleged conversation respecting the dissolved bones, and said it was not to the credit of either party. The landlord was to be the victim if there was one. The analyst's evidence must be accepted as faithful, and if that testimony was worth anything the 21l. paid into court was the full value of the manure. He therefore gave judgment for the defendant.

DUDLEY.

A NEW POINT IN THE SALE OF FOOD AND DRUGS ACT.—On April 15, at the Dudley Police Court, a milkman was charged with selling milk adulterated with 12 per cent. of added water. The inspector of nuisances said he purchased a pint of milk from the defendant's mother, stating that it was for analysis. In cross-examination witness said he did not say for public analysis, and the solicitor who appeared for the defendant claimed that this invalidated the case. The Bench sustained the objection, and dismissed the case. The Town Clerk then withdrew a case against another dealer, on the ground that the words of the statute had not been used by the inspector.

KEIGHLEY.

THE SALE OF POISONS.—At the Keighley Petty Sessions on April 15, Frederick Riddiough, chemist and druggist, Changegate, was summoned for selling poison without a label. Mr. J. W. Craven, instructed by the Treasury, appeared in support of the information, and Mr. Ellis defended. Mr. Craven stated that the defendant was a chemist carrying on business in Keighley. He was charged with selling a certain poison—*nux vomica*—contained in a small vessel which was not distinctly labelled with the name of the article and the address of the vendor. The penalty for infringement was 5l. On February 19 a blacksmith, named Butterfield, who at the time lived in Keighley, went to Riddiough's shop for sixpennyworth of sarsaparilla. The

defendant asked him if he would take a shilling pot, and he said that he would. The defendant then took a pot from a shelf and gave it to Butterfield. This pot, it subsequently appeared, contained, not sarsaparilla, but extract of nux vomica, a deadly poison. Butterfield took the pot home, and next morning he mixed rather more than half the contents with some iodide of potassium and warm water, and gave his wife some of the mixture. Within a short time, unfortunately, Mrs. Butterfield expired. [These circumstances were reported at length in THE CHEMIST AND DRUGGIST of March 12.] The pot, which had on a label, "Ext. nux vom.", but no "poison" or address label, had been submitted to Dr. Stevenson, official analyst to the Home Office, for an examination of its contents. Formal evidence of the purchase having been taken, Mr. Ellis submitted that there was no case, on the ground that there had not been a sale of poison within the meaning of the Act. Sarsaparilla was asked for, and it was clear, from the evidence, and from the price charged—which was different from the price of nux vomica—that the defendant's intention was to sell sarsaparilla. This required no poison label. The defendant knew his business too well, and was too careful to have knowingly sold poison without a label. The chairman said that a man could not get out of a scrape of this kind by merely saying that he had made a mistake. The magistrates said that they could find no mitigating circumstances in the case, and inflicted the full penalty of 5*l.* and costs.

LIVERPOOL AND DISTRICT.

LAUDANUM THE SOOTHER.—On Wednesday, John Morris, a middle-aged man, was charged at the Bootle Police Court with attempting to commit suicide. Prisoner had obtained three-pennyworth of laudanum from Mr. Budden, druggist, 95 Derby Road. This he afterwards swallowed to drown "a lot of trouble he had had lately," and got into such a condition that his removal to the infirmary was necessary. Here he recovered, and was in due course given over to the tender care of the police. He was remanded.

PEPPER ADULTERATION.—At the Lancaster Petty Sessions on Saturday, Samuel Lamb, a grocer, of Skerton, was charged with selling adulterated pepper. Mr. Sadler, deputy clerk of the peace, prosecuted, and Mr. Sharp appeared for defendants. Mr. Sadler having stated the facts in the case, Mr. Sharp applied for a sample of the pepper to be analysed by the Somerset House chemists. He stated that Mr. Lamb purchased the pepper in question from Mr. Cuthbert, a chemist and druggist, of Lancaster, and he purchased it of Messrs. E. Pink & Son, of London. He (Mr. Sharp) had actually in his possession a certificate from Messrs. Pink & Son that this particular pepper was pure. The magistrates agreed to hear the evidence before the application was considered. The purchase of the sample was proved. Dr. Campbell Brown (public analyst for the county of Lancaster) stated that he had examined the sample in question, and found that the smell of long-pepper completely overpowered the smell of the ordinary pepper in it. It was quite impossible to estimate exactly and precisely the quantity of long-pepper in a mixed sample, but he was satisfied that a calculation of 50 per cent. was well within the mark. Long-pepper was the fruit of a plant that grew wild in the watercourses of India and became covered with mud; but the genuine pepper plant was cultivated by the small cottager gardeners in India and the islands of the East for the purpose of being exported for trade uses. Long-pepper was scarcely cultivated at all, and was always on that account very dirty, and it had a kind of aromatic oil of most offensive smell. He had placed a little upon some hot meat, and the flavour of it was such that it was impossible to eat the meat afterwards. Long-pepper was perfectly useless for table purposes, and the difference between long and ordinary pepper was very analogous to the difference between rough hay seed and oats or wheat flour. The price of long-pepper was lower than the coarsest ordinary pepper. Mr. Edward Davies, F.C.S., Mr. Knowles Cooper, member of the firm of Messrs. Rishton, Cooper & Dunderdale, wholesale grocers, of 10 Fleet Street, Liverpool, and another witness gave corroborative evidence, and the magistrates imposed a fine of 5*l.* and costs (2*l.* 13*s.*).

CURIOS POISONING CASE.—A CORONER CENSURED.—An adjourned inquest was concluded on April 15 at the Albany Hotel, Smithdown Road, Liverpool, before the county coroner (Mr. S. Brighouse), touching the death of Mary Jane Hamilton, aged ten years, the daughter of an electro-gilder. The father stated that the deceased had always been a delicate child and subject to fits for a long time. After dinner on Sunday, April 3, she vomited several times, and was sick until she went to bed at ten o'clock at night. He then gave her some milk and water. He saw her when she was asleep during the night. Next day he got some medicine from the chemist's, and she seemed to be better in the evening. On Tuesday morning he gave her some brandy and also beef tea. Whilst doing so he noticed that the child's hands were stiffening and her feet turning inwards, and he sent her in charge of her sister to Dr. Shaw's surgery in Salisbury Road, Lodge Lane. She died the same day. Ada Hamilton, sister of the deceased, said Dr. Shaw gave her sister some medicine, but this did not relieve the deceased. About three weeks ago her brother (Arthur) brought into the house some sulphate of copper and iron for the purpose of making experiments. When he had gone out witness opened the parcel, and some of the contents dropped on the table. These pieces were afterwards put into the fire. She was aware that three days after her sister's death the police found pieces of these chemicals on the floor of the house, but she did not think deceased would have picked them up and eaten them. The deceased was of weak intellect. The mother of the deceased, in her evidence, stated that the deceased's life was not insured. The evidence of Dr. Robert R. Rentoul, who made a post-mortem examination of the deceased on April 9, was to the effect that there were no external marks of an unusual character. The internal organs, however, bore distinct symptoms of poisoning, and contained a quantity of greenish fluid. In witness's opinion death was due to poisoning. The bullet did not bear the irritated appearance which would have been expected as the result of swallowing a sufficient quantity of sulphate of copper in a solid state to cause death. Mr. Day, chemist, deposed to having supplied medicine "of an innocent nature"; and Dr. Shaw deposed to the deceased being brought to his surgery in a state of collapse. He had previously known her to be subject to convulsions. When she visited his surgery she was suffering from spasms in the stomach, and he prescribed for her. By the consent of the father, witness made a post-mortem examination of the deceased, and he formed the opinion that death was caused by poisoning. Witness admitted that he had given a certificate of death, but in it declined to state the cause. He might have said in answer to Inspector Baxendale's and another officer's inquiries at his surgery that he would not state all he knew; but if summoned before the coroner's jury in the proper way he should be prepared to answer any questions put to him. He was not invited by the police to take part in the post-mortem examination made on behalf of the coroner, which he thought he ought to have been, as a matter of ordinary courtesy. He denied that he told Inspector Baxendale that he "particularly objected to Mr. Brighouse's way of doing business"; but he might have said that "in the city medical men were summoned to give their evidence without being questioned." Mr. Brighouse, in summing up, commented on Dr. Shaw's conduct towards Inspector Baxendale, and said it was the doctor's duty, not only as a medical man, but also as a citizen, to assist the police in making such inquiries for the proper administration of justice. The retarding of knowledge and information by a medical man was much to be deprecated and complained about, because if medical men would not give all the information in their power, how were the police to do their duty in such a case? As Dr. Shaw had distinctly declined to give information before he appeared before the jury, it was his (the coroner's) duty to call in another medical man in whom he might have confidence. And he took the responsibility, and still accepted it, of calling in the advice of Dr. Rentoul. Dr. Shaw: Allow me.—The Coroner: A moment please. Mr. Brighouse proceeded to direct the jury as to the issue they had to find—namely, whether or not death was due to poisoning, and, if so, how was the poison administered. The jury then considered their verdict, and after a few minutes' private deliberation, the foreman said they had come to the conclusion that death was due to poisoning, but that there was no

evidence to show by what means the poison was taken. The Foreman (addressing the coroner) added: Some of the jury think your remarks about Dr. Shaw are severe; they are of opinion that had it not been for him "scotching" the way in his certificate we might have been unable to arrive at the understanding we have come to now.

MANCHESTER.

THE PHARMACY BILL.—A petition in favour of this Bill from the Manchester and Salford Sanitary Association, was presented in the House of Commons on Monday.

SERIOUS CHARGE AGAINST A DRUGGIST.—Samuel Bowker, chemist and druggist, was charged at the Salford Borough Court with obtaining six pairs of boots by means of false pretences from Mr. J. I. Cockson, boot and shoe manufacturer, New Bailey Street, Salford. The prisoner, on several occasions in February last, went to Mr. Cookson's shop and represented that he was an executor under his late brother's will. Mr. Cookson knew him, and believing his story let him have on credit six pairs of boots, which the prisoner said were for his nephews and nieces, who lived at Flixton. It was proved that the prisoner was not an executor under the will of the late Mr. T. Bowker, chemist, of Flixton, and that he had no authority to get boots for his nephews and nieces. The prisoner, who was represented by Mr. W. Burton, solicitor, was committed for trial at the assizes. He was admitted to bail in two sureties of 25*l.* each, and himself in 50*l.*

SHEFFIELD.

THE PHARMACY ACTS AMENDMENT BILL.—A meeting of the Sheffield drug trade was held in the rooms of the Pharmaceutical and Chemical Society on Friday afternoon, April 15, at three o'clock, to discuss the provisions of the Pharmacy Acts Amendment Bill, now before the House of Commons, Mr. G. T. W. Newsholme in the chair. The chairman pointed out that the only provision of the Bill was that power should be given to the Pharmaceutical Society to enforce a curriculum, should they think fit. It did not bind the Society to any hard-and-fast lines as to the kind of curriculum to be adopted, and therefore the only question before the meeting was whether the Society should have this power given them. Mr. Furness said he was not opposed to the principle of the Bill, but would rather see it wrecked than passed in its present form. The field which it covered was too limited. Some clauses giving greater protection to the trade should have had a place in it. For instance, he would introduce a definition of the term "wholesale druggist," so as to limit the sale of poisons by men sailing under this title and who were unqualified. He would also introduce a clause giving "chemists and druggists the right to become members of, and therefore eligible for election on, the Council." If a majority of the meeting was in favour of the Bill, he would not move any amendment, but would reserve his right as a citizen to oppose it in the proper channel if he should think fit. Mr. Ward was sorry to see one who had been such an ardent supporter of the School of Pharmacy threatening to jeopardise the Bill. Sheffield had in former meetings committed itself to the principle of the Bill. The Pharmaceutical Society had undoubtedly been well advised in not introducing any contentious trade matters. They had already found from experience the danger attaching to these. He hoped the meeting would give a unanimous vote in favour of the Bill. Mr. Preston was quite in accordance with the principle of the Bill, and thought Mr. Furness's remarks were quite outside the question. Mr. Bradwall pointed out a danger likely to arise from one of the provisions of the Bill should it become law. Power was to be given to a committee of the Pharmaceutical Society to decide what certificates were to be taken in lieu of the preliminary part of the examination. It was most important that this committee should be a thoroughly competent one. He was quite in accord with the principle of the Bill. It was ultimately proposed by Mr. Preston and seconded by Mr. Ward, "That the Pharmacy Acts Amendment Bill receive the support of this meeting." The motion was carried with one dissentient. Some discussion then ensued as to whether a deputation should be appointed to see the local members of Parliament, and ask their support, but

ultimately it was decided that the secretary should send a copy of the resolution to them, as also to the trade journals and the law committee of the Pharmaceutical Society.

WALES.

THE following is a specimen of how things are done in the Welsh valleys:—

"April price-list from A. C. Thomas, chemist, 65 Broad Street (near Primitive Methodist Chapel), Blaenavon. The new chemist from London. All patent medicines sold at the wholesale prices of London, and all drugs, chemicals, &c., sold at the extremely low prices charged by the cheap cutting houses of London. As money and trade is scarce, it behoves every sensible person to spend their money where they can get the best value. Mark the following low prices for ready money only:—Best yellow and black brimstone, 3*d.* per lb.; cream of tartar, 1*s.* 4*½d.* per lb.; tartaric acid, 2*s.* per lb.; best liquorice, 1*d.* per oz.; good senna, 2 oz. 1*½d.*; best, 1*d.* per oz.; borax, 7*d.* per lb.; alum, 2*½d.* per lb.; chlorate lime, 3*½d.* per lb.; camomile flowers, 1*d.* per oz.; 2 oz. 1*½d.*; best paints ready for use, 4*½d.* per lb.; linseed oil, 2*s.* 6*d.* per gallon; 4*d.* per lb.; boiled oil, 2*s.* 8*d.* per gallon; 4*½d.* per lb.; blue colouring for houses, 4*½d.* per lb.; linseed, 3*d.* per lb., or 7 lbs. for 1*s.* 6*d.*; crushed linseed with the oil in for poultices, 3*½d.* per lb.; meal only, 2*d.* per lb., for poultices; best hemp and canary seeds, 2*½d.* per lb.; quinine bitters, 1*s.* 6*d.* bottle for 1*s.*, none better in the world, and although so much lower in price than that so highly puffed off in the newspapers, yet it is quite as good for every purpose for which it is advised to be taken by those advertisers in the newspapers; 'Quinine and Iron Tonic,' 1*s.* 6*d.* bottle for 1*s.*, can also be truly said to be one of the finest medicines in the world for all cases of weakness and neuralgic pains, rheumatic affections, toothache, out of health disorders, &c. &c. The 'Cough Curer,' the 'Essence of Linseed and Anisi,' the 'Balsam of Honey and Linseed,' are all most excellent cough healers and lung restorers, all sold 1*s.* 6*d.* bottles for 1*s.*, and 1*s.* bottles for 8*½d.*; 'American Blood Mixture,' 1*s.* 6*d.* bottle for 1*s.*; not a man in the whole world can produce a better blood cleanser, as it will quite destroy all impurities of the blood and all disorders of the skin if taken regularly for a reasonable time; the 'Toothache Drops,' 'Neuralgic Curer,' 'Ringworm Curer,' 'Wart and Corn Destroyer,' 'Hooping Cough Curer,' are all most effectual remedies and sold at 1*s.* bottles for 6*d.*

"The 'Pure 2*s.* Tea,' only one price and not a packet tea, is bought in London for ready money at the cheapest markets. It is not equalled, and cannot be surpassed in quality, strength, and flavour at any price!"

SCOTLAND.

EDINBURGH.

BUSINESS TRANSFER.—Mr. John Cormack, senior assistant to Messrs. James Hardie & Son, Dundee, has purchased the business in Corstorphine, which has been successfully carried on for several years by Mr. F. Lyon Dewar, of Forest Road, as a branch.

THE VETERINARY DISPUTE.—At the meeting of the Board of Examiners of the Royal College of Veterinary Surgeons held in Edinburgh last week, Professor McFadyean, of Dick's College, dropped in, as it is customary for veterinary professors to do, when the President, Dr. Fleming, requested him to withdraw. This has given rise to some bad feeling, it being alleged that professors of a rival college were allowed to remain. If all teachers were excluded very little harm would be done.

GLASGOW.

THE PHARMACY BILL.—A meeting of the local Chemists' Association was held last Saturday, Mr. Kinninmont, President, in the chair. In opening the discussion on the Pharmacy Bill, Mr. Kinninmont referred to the danger of it being rushed through Parliament, and stated as his opinion that such a Bill was not required, the present examinations being quite sufficient for the safety of the public. The meeting unanimously agreed to oppose the Bill.

A DRUGGISTS' JUBILEE.

AT Boston, U.S., on March 29, a distinguished company met at a complimentary banquet tendered to Theodore Metcalf, on the completion of fifty years in the drug business. The banquet was organised by the druggists of Boston, under the auspices of a committee from the Boston Druggists' Association, composed of Messrs. Thomas L. Jenks, Joseph Burnett, Joel S. Orne, to express esteem for the merchant, the man, their friend, and the first president of the association.

Theodore Metcalf was born in the year 1812. At the age of 14, in January, 1826, he began the old-fashioned apprenticeship of seven years, at Hartford, Conn., and fully served it out, and remained there as a partner for three years more. In the spring of 1837 he started an establishment in Boston, equal to anything in New York or Philadelphia, and quite surpassing any similar house then existing in Boston. He gave an impetus to the better practice of pharmacy, and, while his success was not immediate, in a few years he took the lead which has been so well maintained for half a century.



In 1845 he gave up his business to Joseph Burnett, who had been for some years his assistant, and who kept up the reputation of the store for some time, afterwards being engaged in the manufacture of various chemicals in Boston. In 1855, when Mr. Burnett withdrew, Mr. Metcalf returned to the old store, where he continues to this day. From a small prescription trade his business has grown into a large dispensing and manufacturing establishment, and the goods of the firm are now known in this country as well as in America.

Although no change has been made in the principles upon which the business is conducted, the methods have changed with the times, and while Mr. Metcalf has been quite conservative, he has had the sagacity to elect partners and assistants who keep well in the advance in pharmaceutical progress.

Mr. Metcalf is now seventy-five years of age, yet he is as active as he was twenty years ago, a condition due in no small measure to a good constitution, a clear conscience, and correct habits.

There were over one hundred gentlemen seated round tables arranged in an oblong square when the guests took their places in the dining-room. The menu card, presented by the hotel, was an exquisite affair, with a likeness and autograph of the honoured gentleman on the exterior, and an array of tempting viands on the inner page.

At 9.30 o'clock, when full justice had been done to the repast, President Jenks rapped for order, and spoke as follows:

GENTLEMEN,—We are gathered together to celebrate an event which has few parallels. This is the golden wedding of an honoured merchant, the upright man, our friend, Theodore Metcalf.

During the fifty years of his business pharmacy has made

greater progress than at any time in its history, and during all these years our friend has been in the front, and so intent was he that his patrons might be supplied with all the new remedies that he has standing orders with the best chemists in London and on the Continent to forward to him every new production.

From no like establishment in the country has such influence gone forth to aid in the advance of pharmacy. With such devotion to his profession for all these years, is it a wonder that he commands the confidence and respect of all those who have come under his influence? (Loud applause.)

Mr. Metcalf, in reply, said: "I thank you, Mr. President, for your true words, and I thank you, gentlemen, for this cordial greeting. If this fifty years' jubilee were like that of the Mosaic dispensation, with its kindly humanity of freeing a poor man from his debts, it would bring unalloyed pleasure.

"It was said of old, 'He that is diligent in his business shall stand before kings.' Simply for doing my duty in that state of life to which it has pleased God to call me, I stand with great gratification before kings in theology, in letters, law, science, the drama, and commerce.

"A good memory is required in the conduct of such business as ours. If success has attended these efforts of mine it has come by the exercise of moderate intelligence, aided by integrity, I hope, by industry I know.

"I am glad to see here quite a number of graduates from No. 39, who, following perhaps some of the traditions there learned, are now in prosperous business.

"Here in Boston we enjoy ourselves on these occasions more than other people. Our phrase for it is 'to have a good time.' I shall give way to those speakers who will instruct and interest you, from whose eloquence you can be fed with honeydew and drink the milk of paradise."

After long applause, following Mr. Metcalf's speech, the president introduced His Honour Mayor O'Brien, who said no mayor of Boston ever had a more pleasing task than that which fell on him upon this occasion. "When I look to the right I see one of the most distinguished writers of this or any other country; to the left is one of the greatest of living oculists, and thus through the company. I can only add my tribute, and wish that Metcalf & Co. may long continue to dispense pure and unadulterated drugs."

The president hereupon introduced Oliver Wendell Holmes, by saying:

"We all know how intimately are doctors and druggists associated. We are honoured by the presence of a physician who has known Mr. Metcalf for fifty years. He was the first to recognise his skill and merit. He is alike distinguished in his profession and in literature."

Dr. Holmes said he considered it a great pleasure to take part in this tribute to Mr. Metcalf. "When I was a young man I hung out my modest sign in a small room almost over his shop. I was as ready to receive the smallest favour as he was the smallest favour. I wrote prescriptions upstairs, he filled the same below. We deserved success, and such as was not ours was carried out by Martin Smith, the sexton over the way. I thought some recollection of the pharmacists of years ago as they come up in fragrant succession would be pleasant. There was Ephraim Elliott, little, active, conscientious. I have doubted whether he ever killed a man, acting behind a prescription. Charles White, tall, gaunt, swarthy, smooth of speech. I remember he had a son, who perhaps is still among the living, of whom it was said he had the 'liniments' of his father in his countenance. Thomas Farrington, of whom I remember little. Daniel Hutchins, the Methuselah of Cambridge Street. James T. Brown, who was once my landlord, and the kindest one imaginable. His name ought to be Green, for his spring is eternal."

A letter of regret from Dr. Henry Bowditch was here read, and then Rev. Father Bodfish was introduced. He said: "We are accustomed to pay tribute to military chieftains, politicians, and others, but seldom called to do honour upon such an occasion as this. It is more difficult to plod day by day through the intricacies of business than to lead on the charge of battle. The compliment we pay is most fitting, and we do but honour the profession upon which our lives depend."

After reading a letter of regret from George D. Rosengarten, the president introduced William Warren, the veteran actor, in these words:

"There is a gentleman present whose words and whose acts have been a panacea to the minds of many people who were

seeking recreation and enjoyment, and he has given a multitude of people infinite pleasure."

When Mr. Warren arose so did the company, and three cheers and a tiger were lustily given for this much-revered man.

In his response Mr. Warren said :

"I thought I heard a sound of applause. It took me back to the old days, and I was somewhat like the trooper's horse which heard the sound of battle. I do not know why I am here. I feel the want of the foot-lights, but I can add my unstinted commendations to the worth and sterling qualities of the gentleman whom we honour."

Dr. H. W. Williams, ex-president of the Massachusetts Medical Society, was the next speaker. He spoke of his early recollection of Mr. Metcalf. He said he verily believed, in addition to knowing the elixir vitae, that Mr. Metcalf renewed his youth daily.

Joseph Burnett, who was one of Mr. Metcalf's earliest apprentices, recounted many of the trials which he underwent, and depicted most pleasantly the character of his employer.

A congratulatory telegram was read from Lehn & Fink, of New York, a cablegram from Morson, of London, Eng., and letters of regret from the following :—R. J. Dodge, New York; P. W. Bedford, New York; Charles Bullock, Philadelphia; J. Boyle O'Reilly, E. H. Hazard, Providence; Samuel Colcord, Dover, Mass.

Following these were speeches by S. A. D. Sheppard and A. C. Smith. In the course of the latter gentleman's remarks he presented Mr. Metcalf with a handsome pair of silver bottles, from Thomas Whitfield, of Chicago, with this sentiment :

The crescent warriors sipped their sherbet spiced.
For Christian men the various wines were spiced.

"I recommend Mr. Metcalf take his maraschino with pepper and salt."

Father Theodore Metcalf and F. A. Davidson were the closing speakers. The speech of Father Metcalf was most graceful. He is a nephew of the well-known druggist, and, in speaking of him, his tribute was from the heart, as he made known that his own preference was due to the kind influence and aid of his uncle.

SOCIETY OF CHEMICAL INDUSTRY.

SCOTTISH SECTION.

THE annual meeting of this section was held in Glasgow on April 5, Mr. J. N. Cuthbertson in the chair. The list of office-bearers for the ensuing year was submitted, the chairman of the section being Mr. J. J. Coleman, F.R.S.E., with Dr. Wallace, City Analyst, as vice-chairman, and Mr. G. G. Henderson, B.Sc., as secretary. A discussion took place on the papers which were read at the last meeting, and thereafter a paper was read on the

DETERMINATION OF SMALL PROPORTIONS OF IRON IN COMMERCIAL ALUM AND SULPHATE OF ALUMINA.

By Robert R. Tatlock, F.R.S.E., &c.

The author stated that the demand on the part of turkey-red dyers and others for an alum as nearly as possible iron-free had stimulated the manufacture of that class of goods to such a degree that the article could now readily be procured, in bulk, containing as little iron as .0005 per cent., or 5 parts per million. No published methods were capable of estimating such small proportions with anything like accuracy, on account of the interfering effects of alum itself, free acid, excess of reagent, light, &c., all of which so greatly modified the intensity of the red ferric thiocyanate (sulphocyanide of iron) produced by the ammonium thiocyanate employed for the purpose, that one observer might readily report five or even ten times as much iron as another, if these were not known and taken into account.

He proposed the use of ether for extracting the red colour, and of removing it from the influence of the other agents, and stated that he had made four series of experiments to test the validity of the process :—First series, iron in water solution without ether extraction; second series, iron in water

solution with ether extraction; third series, iron in alum solution without ether extraction; fourth series, iron in alum solution with ether extraction. The results showed that ferric solutions in water, unless strong, gave no red colour with any proportion of the thiocyanate, and even when a considerable amount of free acid was present excess of that reagent gave no result; that the best result was obtained when the proportion of thiocyanate employed was 10,000 times the amount required theoretically for the formation of the iron compound, and normal sulphuric acid equal to 10 per cent. of the total volume of fluid employed; that alum prevented, to a large extent, the development of the red colour; and that the use of ether eliminated all the elements of interference. He recommended the following method for the iron estimation :

1. Dissolve 8.606 grammes of pure iron-alum in water, and make up the bulk of the solution to 1,000 c.c. (1 litre); 1 c.c. of this solution will contain exactly .001 grammes of Fe.

2. Place 1 gramme of the finely-powdered alum sample under examination in a small stoppered sample-tube capable of holding about 30 c.c., and having three file-marks—at $\frac{1}{2}$ c.c., 10 c.c., and 20 c.c. respectively. Fill up to the lowest mark with pure water, add 1 c.c. of normal iron-free sulphuric acid; warm the tube to dissolve the alum, then cool, and add 0.2 grammes of ammonium thiocyanate, and finally make up to the 10 c.c. mark with water.

3. Place 1 c.c. of the iron solution of 1 in a decilitre flask, and make the bulk to 100 c.c. Add 1 c.c. of this weak iron standard (= .00001 grammes Fe) to another sample-tube similar to that of 2; then 1 c.c. of the normal acid, and 0.2 grammes of the ammonium thiocyanate, and finally make up to the 10 c.c. mark with water. Having shaken both tubes to mix contents, make up both to the 20 c.c. mark with ether, and shake vigorously. Compare the intensity of tint of the two ethereal solutions, and add measured quantities of the standard iron solutions to the weaker till the tints are equal, when, of course, both tubes will contain the same amount of iron.

The advantages claimed for the ether-extraction process are that it intensifies the red colour threefold; it admits of the concentration of the iron contained in a large bulk of water solution into a small bulk of ether; it is efficacious in solutions which are tinted or opalescent from mechanical impurities; it obviates the bleaching effect of the alum, and the colour, if bleached by light, is readily restored by shaking, through the ozonisation of the air in the tube, which is not the case with the water solution.

Mr. Tatlock also gave an analysis of mother liquor from green alum, which showed 0.67 per cent. of arsenious acid, thus showing the probability of ordinary alum containing an appreciable quantity of arsenic.

A paper on "A New Process for the Manufacture of White Lead," by J. Bennett, was next read. Mr. Bennett explained that by the Dutch method the manufacture of white lead was exceedingly slow and cumbersome, while, in consequence of the vast amount of dust which was raised in the process, and the article having to be handled while in a moist state, it was also attended with much danger. From fourteen to seventeen weeks was the time taken up in the manufacture of white lead by the process generally in use. By the new process white lead was being manufactured in the St. Mungo Chemical Works in the space of four days; and the process was managed in such a way by the aid of automatic machinery that from beginning to end of the manufacture the material was not handled, and thus the operatives escaped the deleterious effects from which they suffered under the old system. The company also manufactured a "special" white lead, which possessed all the advantages of that made by the old Dutch process, without its disadvantages. It did not darken on exposure to sulphurous fumes; and while being heavier and more opaque, it was in no way affected when mixed with colours to form tints. It was also thoroughly non-poisonous in all stages of its manufacture. This "special" white lead was also manufactured within four days.

QUININE IN JAPAN.—During the second half of 1886, 22,700 oz. quinine were imported into Yokohama, against 15,700 oz. in the corresponding half of the previous year.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

ANGLO-PARISIAN BENEVOLENCE.—The subscription committee of the Anglo-Parisian colony, for Her Majesty's Jubilee, have decided upon the use to be made of the funds contributed. They will be employed towards the establishment in Paris of an asylum for old and needy English people. Its name will be the "Victoria Home." So far, more than 20,000f. have been collected.

CHANGES AMONG HOSPITAL PHARMACISTS.—Owing to the death of Dr. Gay, pharmacist in chief of the Laënnec Hospital, the following changes have been made. M. Bourquelot goes to the Laënnec Hospital, M. Sonnier-Moret to the Enfants-malades, M. Léger to the Beaujon, and M. Berthoud to the Troussseau. M. Gasselin, successful at the last competition, has been appointed to the Incurables.

A NEW CHEMICAL TEST.—The Paris Municipal Council have discovered a novel test—not for chemicals, however, but for chemists. At a recent competition for several positions of analytical chemists in the Municipal Laboratory, a young man who stood second on the list in order of merit was refused an appointment by Prefect Poubelle. On being called to account at a meeting of the Council, the Prefect replied he had acted thus because the young chemist held anti-republican opinions. The Council approved M. Poubelle's course by a large majority.

HYPODERMIC MEDICATION is strongly objected to by M. Basset, a Lyons pharmacist, because he says such practice is very detrimental to the pecuniary interest of pharmacists. His letter was lately published in a Paris pharmaceutical paper, whose editor sagely remarked that he could not endorse such opinions, because they are scarcely honest or human, and if the medication proves successful it will be used notwithstanding all opposition, while if unsuccessful it will fall of itself.

FINED FOR SELLING A SECRET REMEDY.—Faurie, alias Morisse, probably the most obnoxious advertiser in those convenient little monuments provided by a thoughtful municipality, has again come to grief for unlawfully practising pharmacy. The technical charge this time was that he had sold a secret remedy of his preparation, yclept Rob Jacobi, which as a doctor he prescribed to his patients. The sentence was a fine of 500f., besides 500f. damages to the Syndicate of the Seine Pharmacists, who appeared as plaintiffs in the subsidiary civil action.

DEATHS FROM HYDROPHOBIA.—Several cases have lately occurred in Paris, where the disease had almost disappeared since the inauguration of Pasteur's treatment. One was that of a little girl who died last week; but whose case—a common one of street rabies communicated by a dog—presented no particulars deserving notice. The other occurrence was related last Monday by M. Janssen, at the meeting of the Academy of Sciences. M. Charles de Lesseps, eldest son of the Viscount, employed, it seems, two men in his stables. Two dogs were kept there, one of which became hydrophobic, and bit one of the stablemen. The man went to Pasteur's laboratory for treatment, and escaped rabies. But some time afterwards the other dog, that the mad animal was in the habit of licking and caressing, one day bit the second stableman. He thought nothing of it, would undergo no treatment, but a few days ago died of hydrophobia. The little girl already spoken of had also been kept away from Pasteur's laboratory. Whether such a course was the result of the anti-Pasteur crusade, now raging, or mere neglect, does not appear.

ANARCHIC MOVING.—At the late students' meeting a democratic-looking individual went among the bystanders and offered his services to move out on the sly any student unable to pay his rent. He said he was an anarchist, a born enemy to all landlords, and would do the job for nothing. An impecunious young man engaged him for the next day. The anarchist came punctually with several men whom he

called members of his syndicate. While two confederates were occupying the attention of the janitor, others skilfully transferred the furniture to a hand-cart kept at a short distance by the chief anarchist. Soon everything was gone and the student walked out unconcernedly, laughing in his sleeve at the good trick. But when he reached his new residence his furniture was not there, and never came. His fellow-students showed him no sympathy, but said he had been served right.

STANDARD ALCOHOLMETERS.—A useful appropriation passed by the French Parliament is that of 35,000f. for testing and trying the instruments needed in the spirit trade. As the law of July, 1881, renders the use of Gay-Lussac's alcoholmeter compulsory, it is necessary to afford facilities for procuring and stamping correct instruments. The bureau in question, which was established in 1884, is very properly situated in the Rue Cardinal Lemoine, near the Halle aux Vins. It has a director (M. Delachanal) with a salary of 5,000f., one clerk at 1,800f., one office porter at 1,400f., a directress of the ladies' shop, at 2,100f., and eleven auxiliary ladies (*dames auxiliaires*) at 4f. a day. The last are the ones who do the actual work, which consists in testing the alcoholmeters by minute comparisons with standard instruments, and finally engraving on the meters, certified correct, the official stamp, a mark almost microscopic. All these delicate operations have been found to be best performed by feminine hands.

AN INTERNATIONAL ASTRONOMICAL CONGRESS is now meeting in Paris, at the Observatory, near the head of the Boulevard St. Michel. The object of the gathering is to come to an agreement for a concerted action respecting the proposed photographic map of the whole heavens. The gelatine-bromide process has now rendered such a project quite feasible. It only remains to agree upon a uniform scale, and a division of the labour. When completed, the work is expected to effect quite a revolution in the science of astronomy. The first session of the Congress was opened on Saturday, April 16, at 2 P.M., under the auspices of M. Flourens, the Minister of Foreign Affairs, with all the appropriate ceremonies. The following officers were then elected:—President of Honour, Admiral Mouchez; President, O. de Struve, of the Pulkowa Observatory; Vice-Presidents, Messrs. Auwers, Perpetual Secretary of the Berlin Academy of Sciences; Christie, Royal Astronomer at Greenwich; and Faye, of Paris. Secretaries, Messrs. Van de Sande Bakhuysen, of Leyden; and Tisserand, of Paris. Secretaries-adjunct, Messrs. Dünner, of Lund; and Trépied, of Algiers. The other foreign members present are the following gentlemen:—Captain Abney, London; Beuf, La Plata; Cruls, Rio Janeiro; Donner, Helsingford; Elder, Baron von Engelhardt; Folie, Brussels; Gill, Cape of Good Hope; Gylden, Stockholm; Hasselberg, Pulkowa; Kapteyn, Groningen; Knobel, London; Krueger, Kiel; Lohse, Potsdam; Oom, Lisbon; Pechile, Copenhagen; Perry, Stonyhurst College; Peters, Clinton; Pritchard, Oxford; Pujaon, San Fernando; Isaac Roberts; Russel, Sydney; L. M. Rutherford, United States; Shoenfeld, Bonn; Tacchini, Rome; Thiele, Copenhagen; Vogel, Potsdam; Weiss, Vienna, and Winterhalter, Washington, U.S.A. Among the French members, to name only a few of them, the following are present:—MM. Bertrand, Brunner, Cloué, Cornu, Faye, Jansen, Gen. Perrier, Tisserand, Wolf, &c. The Congress is to hold sessions twice a day, Sundays excepted, and the conference is expected to last until next Monday, or later, as festivities will be provided for the star-gazers by the denizens of this sublunar world. At a preliminary meeting the Congress decided—although by an even vote only—not to allow the public or the press at their sessions. The reason, it is said, is that some foreigners are rather shaky in French, and as this language is an absolute necessity in international gatherings, they were afraid to be ridiculed. This is a great mistake. However that may be, when, on Monday, newspaper correspondents presented themselves, they were only admitted to the ante-room, where they had to content themselves with a contemplation of M. Faye's legendary battered hat, and the more or less peculiar head-gear and overcoats of the foreign astronomers. Much might be said about the black soft felts of the English, the shining black tiles of the Parisians, the brown square felts of the Swedes, &c., but, although very interesting, such a discussion would be scarcely scientific, and decidedly unpharmaceutical.

Legal Reports.

TRADE-MARK LAW.

THE SANITAS COMPANY v. CONDY.

THE motion by the plaintiff company to commit the defendant, George Condy, for breach of an injunction issued by Mr. Justice Kay on December 17, 1886, which stood over from March 31, came on Tuesday before Mr. Justice Stirling.

Mr. Aston, Q.C., and Mr. Sebastian appeared for the plaintiff company, and Mr. Brown for the defendant.

Mr. Aston said that in this case Mr. Justice Kay granted an injunction restraining the defendant from using the word "Sanitas" in conjunction with the word "Condy," or from infringing the plaintiff company's trade-mark in any other way. The plaintiff company had registered the word "Sanitas" in classes 47, 16, 50, 11, 4, and 2. He should submit that the registration in class 2 was sufficient to cover the use of the word "Sanitas," as applied to a powder which was taken internally for the purpose of producing antiseptic results. Class 2 covered "chemical substances used for agricultural, horticultural, veterinary, and sanitary purposes." He should submit that the plaintiff company's preparation came within the definition "chemical substances used for sanitary purposes."

Mr. Justice Stirling: Are you registered under class 3?

Mr. Aston said the plaintiff company had not registered under class 3, but they had registered under class 2. Mr. Justice Kay granted an injunction in the broadest terms, restraining the defendant from infringing the plaintiff company's trade-mark in any way. The plaintiff company's trade-mark, whether applied to one class of goods or another, was still a trade-mark, and it would be an infringement if the defendant took it and applied it to class 3, in which the plaintiff company had not registered.

Mr. Justice Stirling: I do not know that. That may be a serious question to be tried hereafter.

Mr. Aston said if there were two classes, and a person only dealt in one class, he would naturally only register in the class in which he dealt. But there was nothing to prevent the plaintiff company, although they had not dealt in effervescent drinks before, from extending their business, and applying their trade-mark to effervescent drinks.

Mr. Justice Stirling: I am not at the present moment going to express any opinion as to whether the law is as you say.

Mr. Aston said that was his submission. Mr. Kingzett, the managing director of the plaintiff company, had made an affidavit in which he said that the word "Sanitas" had been registered as the plaintiff company's trade-mark in class 2, in respect of chemical substances used for agricultural, horticultural, veterinary, and sanitary purposes. Amongst other preparations sold by the plaintiff company was "Sanitas Disinfecting Fluid," which was a preparation which could be taken internally for dysentery, cholera, and typhoid fever. The fluid had the same effect, when taken internally, upon microbes that external application had. Mr. Kingzett further stated that he was informed that the defendant did not carry on any business.

Mr. Brown: That is denied.

Mr. Aston said the affidavit went on to state that the defendant advertised his article under the name of "Condy Sanitas," and that if the defendant was allowed to use the word in conjunction with the defendant's name, it would be calculated to induce the public to believe that Condy Sanitas was manufactured by the plaintiff company. He submitted there could be no doubt that the defendant was trying to evade the injunction granted by Mr. Justice Kay, and was trying to appropriate to himself the benefit of the plaintiff company's trade-mark. His application was to restrain the defendant from continuing to infringe the plaintiff's trade-mark.

Mr. Justice Stirling: No; it is a motion to commit for breach of an injunction.

Mr. Aston said that was so, but these applications must be resolved into an application for an injunction to restrain. He submitted that there had been a breach of the injunction, and that the plaintiff company was entitled to an order to commit.

Mr. Sebastian followed on the same side, contending that the defence that the defendant was selling a powder and not a fluid was not a valid one. The powder was sold for the purpose of being converted into a fluid by the addition of water, and therefore the defendant was virtually selling a fluid.

Mr. Brown, on behalf of the defendant, asked that the motion should be dismissed with costs. He only wished to remind his Lordship that, when the case was last before the Court, it was ordered to stand over in order that the plaintiff company might adduce further evidence, but no further evidence had been adduced.

Mr. Justice Stirling said this was a motion to commit the defendant for breach of an injunction, contained in an order made by Mr. Justice Kay on December 17, 1886, restraining the defendant from using the word "Sanitas" in conjunction with the word "Condy," or from in any way infringing the plaintiff company's trade-mark. What the defendant had done was to issue an advertisement, in which the words "Condy Sanitas, an effervescent health protector saline" occurred. It was said that by issuing that advertisement the defendant had broken the injunction. Now, what the defendant had been restrained from was from infringing the plaintiff company's registered trade-mark "Sanitas," but in issuing the advertisement with reference to an effervescent medicine, it did not seem to him that the defendant had done anything in contravention of the injunction. The plaintiff company had not registered their trade-mark in class 3, which related to medicines, and therefore he thought that the proper course to take would be to make no order on the motion.

Gazette.

PARTNERSHIPS DISSOLVED.

CHITTENDEN & EVERE, Faversham, surgeons and apothecaries.

EDDOWES & CO., Warrington, soda-water manufacturers.

HODGSON & BRIGGS, Aspatria, Cumberland, surgeons.

THE BANKRUPTCY ACT, 1883.

RECEIVING ORDERS.

BENTLEY, CHARLES EDWARD, Olney, Buckinghamshire, surgeon.

DE GRUCHY, JAMES EDWARD (trading as De Gruchy & Co.), Crescent Road, South Norwood Park, and Clerkenwell Road, printer, stationer, and photographic material dealer.

OGILVIE, WILLIAM ALEXANDER, & ROBSON, WILLIAM HOPE (trading as Ogilvie, Robson & Co.), Newcastle-on-Tyne, oil importers and refiners.

FIRST MEETINGS AND PUBLIC EXAMINATIONS.

MOORE, JOSEPH, Beulah Road, Thornton Heath, doctor. April 27, at 109 Victoria Street, Westminster. April 29, Town Hall, Croydon.

OGILVIE, WILLIAM ALEXANDER, & ROBSON, WILLIAM HOPE (trading as Ogilvie, Robson & Co.), Newcastle-on-Tyne, oil importers and refiners. April 28, Official Receiver's Office, Newcastle-on-Tyne. April 28, County Court, Newcastle-on-Tyne.

ADJUDICATIONS.

OGILVIE, WILLIAM ALEXANDER, & ROBSON, WILLIAM HOPE (trading as Ogilvie, Robson & Co.), Newcastle-on-Tyne, oil importers and refiners.

WALLACE, ALEXANDER, Colchester, physician, and as the New Plant and Bulb Company, florist and plant merchant.

NOTICE OF DIVIDEND.

LIGHTBOWN, THOMAS, Rishton and Padiham, Lancashire, wholesale druggist. Second and final div. of 1s. 2*1/4*d., any day, Official Receiver's Office, Preston.

BANKRUPTCY REPORTS.

Re JOSEPH SLACK, 162 St. John's Road, Hoxton,
Mineral-water Manufacturer.

THE debtor in this case failed on March 21, and a summary of his affairs, together with the Official Receiver's observations upon them, have now been issued to the creditors. The accounts show total liabilities, 774*l.* 7*s.* 8*d.*, of which 731*l.* 19*s.* 10*d.* is expected to rank; against assets, 152*l.* 17*s.* 9*d.* The debtor attributes his failure and deficiency chiefly to loss (estimated at 300*l.*) during the partnership on a refreshment contract at the Britannia Theatre, Hoxton; to loss of bottles (estimated at 135*l.*); and to his expenses having subsequently been in excess of the profits, owing to bad seasons and excessive competition. The debtor, on his own application, has been adjudged bankrupt.

The first meeting of creditors was held on Thursday before Mr. Chapman, Assistant Receiver. Annexed is a list of creditors:—

Unsecured.

	£	s.	d.
Barnett & Foster, Kingsland ..	..	18	15 3
Bourne, J., & Son, St. Pancras ..	..	47	10 0
Dunn & Chizez, Kingsland Road ..	..	10	0 0
King, Danl., Kingsland Road ..	..	74	8 7
Masters, —, Chiswell Street ..	..	16	4 4
McEwen, J., New Road, E. ..	..	17	10 0
Mellor, Jepson & Mellor, Notts ..	..	12	0 0
Murray & Co., Turnmill Street ..	..	30	15 6
Peppert, J. T., St. John's Road, Hoxton ..	..	16	12 5
Rylands, Dan., Barnsley ..	..	67	5 4
Smith, A., Hoxton Street, E. ..	..	33	5 3
Smith, E., City Road ..	..	36	5 7
Sykes, McMAY & Co., Castleford ..	..	10	3 7
Travis, E., Kingsland Road	19	13 4

Partly Secured.

Jewell, H., Commercial Road, E.	250	4 11
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There was no offer, and the Official Receiver will therefore wind up the estate.

WHEATLEY & DAVIES, PHOTOGRAPHIC CHEMISTS.—These debtors came up for public examination at Liverpool on April 15. They had carried on business as photographic chemists and dealers at 30 Moorfields, Thomas Henry Wheatley residing at 15 Henderson Grove, Moss Side, Manchester, and Harvard Andrew Davies residing at 19 Arthur Street, Liverpool. It appeared, on examination by the Official Receiver, that the failure was owing to the pressure of creditors. The operations of the firm had been conducted through the winter months, during which time very little had been done, and the debtors stated that if they were allowed to continue the business through the coming summer season they would be able to pay 20*s.* in the pound, but they could not say whether the amount could be guaranteed. The liabilities in the statement of affairs were 268*l.* 15*s.*, and assets 117*l.* 15*s.*, less 11*l.* due to preferential creditors, leaving a deficiency of 140*l.* The examination was adjourned until April 28.

Trade Notes.

PROCTER'S LIQUID GLUE.—The makers of this (Messrs. J. H. Winkelmann & Co., Baltimore) send it out in large-sized 6*d.* bottles, attractively labelled, and with neat metal cap and brush. The glue is a good preparation, and is likely to sell well in this country. Mr. W. Young, 42 Cheapside, E.C., is the agent.

It is announced that Messrs. Richardson & Co., of Leicester, will discontinue the publication of the *Provincial Medical Journal* after the issue of the June number. The present editor, Thomas M. Dolan, M.D., of Halifax, Yorkshire, intimates that after that date he will conduct the journal on his own responsibility.

MESSRS. CRESSWELL BROTHERS, of 2 Red Lion Square, Holborn, announce that from Monday to Saturday of next

week they will have a "special show" of various kinds of sponges at special prices. This system of show-days is common in some trades, but is novel for chemists and druggists.

MESSRS. E. A. HEARN & Co., of Kingsland Road, London, are offering, through our advertisement pages, a "guinea parcel" of feeding-bottles, comprising a very useful selection of 4*d.*, 6*d.*, and 1*s.* bottles, or, rather, bottles which can be advantageously sold at these prices. From samples shown us the parcel seems to be very good value.

MESSRS. INGRAM & ROYLE, of 52 Farringdon Street, have just issued a new "Carriage paid" price-list of mineral waters, salts, and pastilles. Chemists will find it very convenient to know the exact cost, including carriage, of any mineral water, as the latter cost often appreciably affects the rate at which the waters can be sold. We understand that a further small discount is allowed by the firm on the articles for which they are sole agents. They will supply a copy of the list to any chemist on application.

JENSEN'S COD-LIVER OIL.—Dr. E. Salkowski, president of the chemical laboratory of the Pathological Institute in the Royal Hospital of Berlin, has written a very laudatory criticism of Jensen's Ice-refined Cod-liver Oil. He has found it clear and fluid even at from 10° to 14° of frost, and has cooled it down to 3° F., at which temperature, he states, "it becomes opaque, gelatinous, and semi-fluid, but not tenacious"; whilst all other cod-liver oils which have been cooled to the temperature referred to formed a solid mass, more or less hard. When the frozen cod-liver oil is placed into snow of a temperature of 32° Jensen's oil soon becomes fluid and perfectly clear, whilst no other brand of liver oils shows a similar behaviour; they either remain solid and jelly-like when kept in melting snow, even for hours, or become thick and turbid.'

TRADE-MARKS APPLIED FOR.

THE *Trade Marks Journal* publishes the following notice:—"Any person who has good grounds for objection to the registration of any of the following marks may, within two months of the date of this journal, give notice in duplicate at the Patent Office, in the form 'J,' in the second schedule to the Trade Marks Rules, 1883, of opposition to such registration." The address of the Patent Office is Southampton Buildings, London, W.C.

From the "Trade Marks Journal," April 20, 1887.

- "FOOD FOR CATTLE," and a farmyard scene; for food for cattle and horses. By Foster, Seymour & Co., 42 Bellinden Road, Peckham, 59,583.
- "SNOWFLAKE"; for chemical substances (Classes 2 and 3), 59,654-5. Also "Oceana"; for same, 59,858-9. By Hodgkin & Simpson, Wakefield.
- "SAPONIA DENTIFRICE"; for tooth powder. By C. J. Bloodworth (trading as Gordon Murray & Co.), 17 Furnival Street, E.C. 59,804.
- "WATSON'S MARVELLOUS PIG POWDERS," and figures of two pigs; for pig powders. By J. W. Watson (trading as J. W. Watson & Co.), Market Rasen. 60,517.
- "BOVRIL"; for chemical substances (Class 3). By J. L. Johustoue, 10 Trinity Square, Tower Hill. 60,501.
- "GOSSAGE'S PREMIUM"; for chemical substances (Classes 2 and 3). By W. Gossage & Sons, Widnes. 60,542-3.
- "AQUAMOLLIS"; for water-softening compounds. By The Stanhope Company (Lim.), 23 Bucklersbury, E.C. 60,554.
- "MORMON ELDER'S DAMIANA WAFERS"; for medicine for human use. By F. B. Crouch, 202 Grand Street, New York. 60,776.
- "MK," and signature of depositor; for sulphate of copper. By D. McKichnie, St. Helens. 60,785.
- "CASSIE'S NERVE DESTROYER," and figure of a woman's face; for curative for toothache. By R. L. Cassie, 47 Newgate Street, London, and Romford. 60,813.
- "CONDY'S POWDER"; for chemical substance (Class 2). By Condy & Mitchell (Lim.), Turnmill Street, E.C. 61,297.
- Blank label, with name of depositors; for perfumes, &c. (Class 48). By J. & E. Atkinson, 24 Old Bond Street, W. 63,07.

CONSULS' REPORTS.

BULGARIA.

Otto of Rose. Mr. H. M. Jones writes from Philippopolis that the demand for otto of roses has fallen considerably since the year 1885, owing, it is said, to its being supplanted by an inferior article of Chinese (?) origin—probably geranium oil—used for purposes of adulteration. British perfumers would gain by dealing directly with the actual producers of otto (no difficult matter), as the local agents, Jews and Greeks chiefly, exact extortionate profits from both clients.

The exports of rose water and essence from Eastern Roumelia are given as 6,500 lbs. (value 65,000*L.*) in 1884, and 7,300 lbs. (value 80,000*L.*) in 1885.

COREA.

Opening for British Trade. Consul-General Baber writes from Hanyang that the resources of Corea are considerable, and that the country could afford an important outlet for British goods if properly worked. In particular there is a large demand for aniline dyes, which are now mostly imported from Germany.

Ginseng. The annual production and sale of red ginseng is a Government monopoly, and is farmed out to a number of merchants attached to the annual overland Corean mission to China, capital punishment being inflicted on any other person found trafficking in the article. Notwithstanding this heavy penalty, smuggling is rife. The value of the red ginseng leaving the country annually has been estimated at 80,000*L.*

EGYPT.

Petroleum Borings near Suez. The borings at Gimsah and Gebel Zeit have not hitherto been very successful, although by all accounts the prospects are favourable. A depth of about 600 feet has already been reached, and boring operations are going on at several points. A considerable amount of material and machinery for collecting and storing the oil has been taken to the spot, with the view of being prepared to receive and store the oil should it burst upon the explorers in large quantities, and the work is being carried on with an amount of energy deserving of success. The existence of petroleum in considerable quantity seems to be so clearly indicated that this first outlay would appear justifiable. At Djemeh three borings have been carried to a depth respectively of 425, 350, and 320 feet, and promise well, the soil being heavily charged with petroleum.

FRANCE.

Imports of Chemicals. The following figures will show how seriously British exports have been affected in many branches by the fiscal policy now followed in France. The Republic imported from this country the following quantities of goods:—

	1885	1886
	Kilos.	Kilos.
Camphor	35,828	32,434
Cutch	321,672	412,424
Caustic soda	3,394,429	4,467,331
Chloride of lime	3,768,673	—
Dyes (lichen)	314,555	170,154
Indigo	284,367	175,588
Quicksilver	132,816	156,318
Sponges	62,082	37,392

Trade at Bordeaux. The principal articles of export from Bordeaux in 1886 include the following, the quantities exported in 1885 being quoted in parentheses:—Chemicals, 192,298 cwt. (218,110); rosin, 103,636 cwt. (135,712); oils, 135,694 cwt. (148,146); gum, 25,366 cwt. (49,822); perfumery, 2,046 cwt. The following relate to the imports; Indigo, 1,582 cwt. (2,008); gum, 49,674 cwt. (75,858); pepper, 4,760 cwt. (5,494); oils, 34,164 cwt. (26,972); chemicals, 181,628 cwt. (271,782); vanilla, 524 cwt. (452).

Copper Sulphate against Mildew. The Gironde vineyards have lately suffered severely from mildew, but a new treatment is now being applied with success. The remedy used consists in a solution of sulphate of copper mixed with slaked lime, which is sprinkled on the leaves of the vines. Though known for some time already this mixture (the so-called "Bouillie Bordelaise") has not

yet been generally applied by vineyard proprietors of this district, as it has been feared that it might have a prejudicial effect upon the flavour of the wine produced from plants sprinkled with it; and some persons have apprehended that it would affect not only the flavour of the wine but also the health of the persons drinking the latter. How far the flavour may be affected appears to be as yet an undecided question; but that wine made from plants sprinkled with the mixture referred to cannot be injurious to health has been proved at Bordeaux by numerous and most careful analyses. It has been found, and may safely be regarded as beyond all doubt that the quantity of copper in 1 litre of wine produced from such plants does not exceed $\frac{1}{10}$ th to $\frac{3}{10}$ ths of a milligramme of copper per litre; that is to say it would be necessary to drink about 2,000 gallons of such wine in order to absorb about 15 to 45 grains of copper.

The Hâvre Chemical Trade. Business in Hâvre has been very bad in 1886 especially in chemicals, but towards the close of the year an improvement set in. The year's balance shows a diminution in sulphate of soda, supplied to Belgium for the glass manufactories (usually 5,000 tons), on account of the riots there, a rise in pyroligneous acid, and specially in acetic acid, of 10*f.* per 100 kilos. in the middle of the year, due to active demands from England, and also of 2*s.* per cent. in chloride of lime. The manufacturers of soda have reduced the amount turned out. The rise has been from 6*f.* per 100 kilos. to 8*f.*, and will probably rise to 10*f.*; on salts of soda from 14*f.* to 18*f.*; also on muriatic and sulphuric acids, and pyroligneous and colouring matter of vegetable origin. Soap only continues depressed. A new industry may, and probably will, be started, namely the making of ether for the new experiments in melinite.

FRENCH COLONIES.

Trade with Algeria. The Algerian market is now free to all French goods, while foreign articles have to pay the customs duties fixed by tariff. The result is, of course, to greatly stimulate French trade with the colony. Medicines were exported from France to Algeria to the extent of 8,000*L.* in 1885 and 15,500*L.* in 1886; soap, 166,760*L.* in 1885; 176,600*L.* in 1886.

Produce of Cochin China. This colony is suffering from extreme commercial depression, and, moreover, the statements frequently made that the country is capable of growing all tropical produce appear grossly exaggerated. With the exception of rice, exports are insignificant. During 1886 only 68 piculs isinglass (from Cambodia) and 10 piculs cardamoms were exported.

JAPAN.

Tax on Druggists. The business of a druggist appears to be liable to some special taxation or licence in Japan, realising a not inconsiderable amount. The estimated revenue from this source for the financial year 1886-7 is placed at 59,271*L.*, showing a serious falling-off as compared to previous years.

Chemical Industries. A sulphuric acid manufactory and a soda manufactory are worked in connection with the Imperial Mint at Osaka. They were formerly worked by the Government, but have now been leased to a company.

Mineral Products. The latest statistics for the minerals produced by the Japan mines are those for 1882. The amounts are given in Japanese "Kwamme" (8*½* lbs. avoirdupois):—Antimony (crude), 662,500; manganese (crude), 41,510; arsenic, 2,889; sulphate of copper, 16,627; plumbago, 2,546; petroleum (crude), 162,607; (refined), 657,982; verdigris, 449,150; sulphur (raw), 471,335; (refined), 436,131; alum (raw), 1,490; (refined), 1,500.

ROUMANIA.

Obstacles to the Import Trade. The import trade has been a good deal hampered in the course of 1886 by the abolition of the Roumanian conventional tariff consequent on the expiration of the commercial treaty between Roumania and Austria-Hungary, and by the fact that no fresh treaty has been made to take the place of that which expired on June 1 last. When this treaty was negotiated it was stipulated that all goods coming from Austria or Hungary, which were not mentioned in the tables annexed to the treaty, should pay a duty of 7 per cent. *ad valorem*, until a tariff could be framed giving specific rates

of duty calculated on the above basis. This tariff, once framed, came eventually to replace the Roumanian general tariff; the different concessions made to countries negotiating subsequent treaties were inscribed in this tariff in view of the fact that most-favoured-nation treatment was stipulated for in all these treaties.

Conventional Tariff. This was called the conventional tariff, and there were no treaties paid an extra 15 per cent. up to July 13, 1885. A new general tariff was then brought into force, applicable to the goods of all countries with which there were no commercial treaties; but this was again revised, and the present general tariff came into force on May 29, 1886. The treaty with Austria-Hungary having expired on June 1, the general tariff is applicable to all goods which do not form the subject of treaty stipulations, and it will be readily understood that, with all these changes, not only have importers found difficulty in estimating the amount of duty to which their goods would be liable, but the custom-house officers have themselves been in doubt at times as to the proper amount of duty to be levied, more especially in view of the power conferred by the new customs law of levying an extra duty up to 30 per cent. *ad valorem* on goods coming from a country where Roumanian goods and products are submitted to a higher rate of duty than that provided for by the general tariff of that country.

Advantages to British Trade. In framing the new general tariff, two objects appear to have been kept in view. First, the protection of Roumanian industries—not only those that exist, but also such as it is considered might be created in the near future. Secondly, the imposing of a high, and in some cases a prohibitory, rate of duty on such articles as come, either entirely or for the most part, from Austria-Hungary. Under these circumstances there are certain apparent anomalies in the general tariff itself, and these are still more striking when the merchant has to consider the tariff, together with the modifications introduced by the different treaty stipulations, by all of which British trade benefits. It is well to bear in mind that in some cases a low class of goods will have to pay a higher rate of duty in Roumania than the same goods of better finish or superior quality.

RUSSIA.

Trade declining. The report by Consul J. Mitchell on the trade of the district of St. Petersburg in 1885 shows that the condition of commerce throughout Russia is going from bad to worse. The external trade of the Empire is falling off year by year to an enormous extent, and the condition of agriculture and manufacturing industry is depressing in the extreme.

Prospect of British Trade. No favourable change in the commercial relations between Russia and Great Britain can soon be expected. The Russian Government does not exhibit the least tendency to modify its strongly protective policy in the matter of trade; on the contrary, it seeks also by indirect means to realise this policy in a manner which seriously affect commercial interests, such as a scheme, initiated by the Government in 1885, of fixing and controlling the tariffs of railways employed in the carriage of goods, especially of non-Russian origin.

Nijni-Novgorod Fair. This fair, held annually in August, is the most important of all Russian fairs; but the volume of business transacted there in 1885 was smaller than in any preceding year since 1875. In 1884 20,501,590*l.* worth of goods were brought to Nijni, of which 19,904,813*l.* was sold; in 1885 the figures were 18,616,485*l.* and 16,779,394*l.*

The official returns of the imports in Reval give the following result:—

	Value	
	1885	1884
Bleaching powder ..	5,299	8,285
Soda ..	10,702	21,990
Gum ..	169,047	143,089
Dyewood ..	9,457	14,010
Dyegoods ..	199,445	268,076
Gutche..	15,913	24,492

SAN DOMINGO.

Business at Puerto Plata. The trade of Puerto Plata, the second important trading-centre of the Republic of San Domingo, from suffered but little depression last year, although the prices of produce exported were generally lower. A railway to the interior is now in course of construction, and will, it is thought, tend to greatly increase the export trade. Puerto Plata exports large quantities of dye-woods to England, France, and Germany. Honey and beeswax are also articles of export, but all the former goes to the United States, and the latter to Spain.

SPAIN.

Drugs for Barcelona. About one-fourth of the drugs and chemicals imported into Barcelona come from England, the remainder being mostly supplied by France, Germany, and Belgium. In 1886 no less than 73,960 tons weight of drugs and chemicals were brought into Catalonia by way of the French frontier. The total value of the principal imports of pharmaceutical interest is given as follows:—

	1886	1885
Anise ..	Value £ 4,210	3,397
Chemical preparations, drugs, and medicines ..	{ Number of packages } 86,409	52,666
Soap ..	Value £ 3,603	5,900
Spices ..	.. 11,190	5,340
Gum ..	.. Bags 436	2,777
Indigo..	.. Value £ 5,620	5,351
Oil (vegetable) ..	.. " 19,848	103,440
Wax ..	.. " 21,000	14,250

Professions and Trades. An official return gives the following numbers of persons engaged in different trades and professions in the city of Barcelona:—Druggists: 73 masters, 173 assistants; chemists: 175; surgeons: 519; perfumers: 17 masters, 15 assistants; veterinary surgeons: 34.

Liquorice. The exportation of liquorice-root from Alicante in 1886, almost entirely to the United States of America, is the largest quantity shipped here during any of the previous five years, being 1,400 tons (value, 17,000*l.*), as compared to 900 tons (value, 11,000*l.*) in 1885. From Tarragona 464 tons (value, 7,555*l.*) were shipped in 1886, against 228 tons (value, 2,620*l.*) in 1885. [The whole of the exports of this root is apparently consumed in the manufacture of tobacco, chiefly at Richmond in Virginia.—ED. C. & D.]

TURKEY IN ASIA.

Trade at Damascus. The year 1886 has not been a prosperous one for the district of which Damascus is the centre, both imports and exports of merchandise having considerably decreased in volume. About one-half of the goods imported still come from Great Britain, but we are fast losing ground, which is being occupied by continental competitors, notably Germany and Italy.

Apricot Kernels. The exports of apricot kernels are growing, although the crop in 1886 appears to have been a failure. In 1885 4,910 sacks (worth 8,019*l.*) were shipped from Damascus, and in 1886 3,314 sacks (worth 11,121*l.*) [Presumably for use in the manufacture of almond oil.—ED. C. & D.]

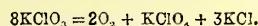
Liquorice. There has also been an augmentation in the exportation of liquorice-root. The amount of the latter sent out of Damascus alone reached over 10,000*l.*, while the total value of this article exported from the whole of Syria is said to have been nearly 100,000*l.* It is shipped entirely to the United States, but in consequence of the great competition which has lately arisen in the export, it is not likely that considerable profits will be realised in the future.

Hints to British Exporters. Efforts must not be neglected on the part of British firms to promote their interests in the East, in the same way as other foreign mercantile houses. Costly and elaborately got-up circulars are sent to Asiatic Turkey by every post which arrives from England, and no opportunity is missed by the Consulates to bring them to the notice of native merchants and traders, but much more could be done in the interests of British trade by the periodical visits of commercial travellers. Inquiries are not infrequently made as to whether there is any likelihood of such travellers coming out to the country, who would be able to do business in some particular article required, which shows the desire to deal with British firms; and it is needless to say that any representative of a mercantile firm in England would receive every proper assistance and advice from Her Majesty's Consulates.

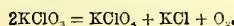
Scientific Notes :

On Chemistry, Pharmacy, Botany, Materia Medica, &c., Original, Selected, and Translated.

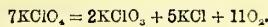
DECOMPOSITION OF POTASSIUM CHLORATE AND PERCHLORATE BY HEAT.—Following up the experiments of Dr. Teed upon the decomposition of chlorate of potash by heat, Dr. Percy Frankland and Mr. John Dingwall have communicated a paper to the Chemical Society in which they show that when potassium chlorate is heated over a naked gas flame and is partially decomposed, the decomposition may be expressed by equations of the type—



But the more complete decomposition is the more does it approximate to that indicated by the equation—



They have also in their experiments on potassium perchlorate fully established the formation of potassium chlorate in the first stages of its decomposition. This reaction is of interest as forming an exception to Berthelot's law of maximum work, the well-known formation of potassium perchlorate from potassium chlorate being a reversible change. In a first series of experiments with perchlorate, the potassium chlorate was determined by means of the zinc-copper couple method. Finding, however, that the couple had a very slight action on perchlorates, a second series of experiments were made, in which the chlorate formed was determined by evaporation with hydrochloric acid. The results entirely substantiate those with the chlorate, and show the partial decomposition to be represented by the equation—



THE COLOURING MATTER OF DROSERA WHITTAKERI.—This was the subject of a paper by Professor E. H. Rennie, M.A., D.Sc., read at a meeting of the Chemical Society on March 3. The author's attention was drawn to the presence of a red colouring matter in the tubers of this drosera, which grows plentifully on the hills near Adelaide, South Australia. On inquiry he ascertained that Mr. Francis, of Adelaide, had extracted the colouring matter by means of carbon bisulphide, and had found that it was volatile, and that beautiful tints could be produced with it on silk by means of various mordants, but had not continued the investigation. To separate the colouring matter, the tubers were heated with hot strong alcohol. After distilling off the spirit, a little water was added, and the precipitated colouring matter was then dried and sublimed; the product was a mixture of two substances, differing in solubility in boiling alcohol and acetic acid. The less soluble was obtained in small brilliant red plates, canoe-shaped under the microscope, which melted at 192–193°. Analysis gave numbers fairly agreeing with those required by the formula $\text{C}_{11}\text{H}_8\text{O}_5$, which may represent a trihydroxy-methylnaphthaquinone. The reactions of the substance, in so far as they could be studied with the small quantity of material at disposal, serve to support the view that it is thus constituted. The second substance was finally obtained in needles, quite different in appearance from the red plates, though to the eye of much the same colour. Under the microscope single crystals seemed yellow, but wherever they overlapped the colour appeared deep orange to red. It fused at 164–165°. Analysis gave numbers fairly agreeing with the formula $\text{C}_{11}\text{H}_8\text{O}_4$.

CALUMBIN.

DUQUESNEL proposes a new method for the preparation of calumbin, the peculiar principle of calumba root. The powdered root is exhausted with 95-per-cent. alcohol; the tincture is evaporated to a syrupy consistence and treated with chloroform; the chloroform solution filtered, evaporated, and treated with 60-per-cent. alcohol, which dissolves most of the colouring matter. The residue (which contains the calumbin) is dissolved in strong alcohol, finally decolourised with animal charcoal, and crystallised. The yield of the principle is from 0·35 to 0·4 per cent.—*Arch. de Pharm.*

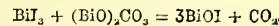
OXYIODIDE OF BISMUTH.

THIS salt is coming into use in the United States as a substitute for iodoform as an external application. Recently there have been numerous expressions of opinion against the reputed value of iodoform as an antiseptic; but apart from this the objectionable odour of the remedy, which nothing seems to cover when it is used, has always allowed free scope for the introduction of odourless substitutes. Oxyiodide of bismuth has a composition represented by the formula BiOI . It is a red amorphous powder, and the methods for its preparation have lately been the subject of discussion in the *American Journal of Pharmacy*. Mr. C. Mayo states that it may be prepared by rubbing together in a mortar 306 parts of subnitrate of bismuth and 165·6 parts of iodide of potassium with sufficient hydrochloric acid to form a paste. This is then treated with a large volume of water, which completes the reaction. Mr. Mayo states that the chemical formula of the product is either BiOI or $\text{BiOI}_2\text{H}_2\text{O}$. Later it was pointed out by Mr. Joseph W. England that the product by Mr. Mayo's method contained oxychloride of bismuth as well as oxyiodide, and he proposed to prepare it by dissolving the subnitrate in nitric acid, dilute with a little hot water, and pour the solution into a hot solution of the iodide of potassium, stirring constantly and vigorously until decomposition is complete. It is now pointed out by Mr. Frank M. Moerk that Mr. England's oxyiodide is contaminated with subnitrate, but, although a pure oxyiodide is easily prepared by fusing bismuth and iodine together in proper proportions, afterwards boiling the product in water, or by dissolving subcarbonate of bismuth in hydriodic acid, he states that the medicinal virtues attributed to the oxyiodide of bismuth really belong to mixtures of oxyiodide and subnitrate, pure oxyiodide of bismuth having, as yet, not been used in medicine. The method which he suggests for preparing the compound is one similar in principle to Rother's method for preparing bismuth citrate. The following is the formula proposed:—

Bismuth subnitrate..	..	..	..	10 grammes
Potassium iodide ..	..	..	..	4 "
Water ..	..	..	..	50 c.c.

Boil for thirty minutes, filter, and wash the precipitate until the washings no longer produce turbidity with solution of nitrate of silver. Dry first by pressing between bibulous paper and then at 125° C.

It was previously determined that the product contained 70·7 per cent. of bismuth oxide (Bi_2O_3), and therefore that the formula BiONO_3 (BiOI)₂ represents its composition. The pure oxyiodide, as stated, may be prepared by adding hydriodic acid to subcarbonate of bismuth in small proportions at a time; the iodide (BiI_3) which is precipitated is boiled with subcarbonate and water, whereby the following reaction takes place:—



This iodide has a copper-red or chocolate colour, is crystalline, and is soluble in strong hydrochloric acid without liberation of iodine, dilute acids decomposing it, forming the iodide (BiI_3) and the corresponding salt.

THE DRUGS OF MAURITIUS.—Medicinal plants have been but little studied in Mauritius. A remedy for dysentery is sought in the *ipica sauvage* or *ipica du pays* (*Tylophora asthmatica*). A decoction of the slender thread-like stem of the parasitic *tsihitrafotatra* (*Cassytha filiformis*) is given for intestinal derangement, and as a tonic for scrofulous and rachitic infants. An oleoresin resembling elemi, probably produced by *Canarium Colophania*, is employed in the form of plaster as a detergent. The yellow juice which flows from the incised stems of the guava (*Psidium pomiferum*) is used as an application to ringworm, and a skin disease called *tam-pane*. The wood of the shrub *liane poilly* (*Embelia micrantha*) is administered as a tonic, and given in decoction for nephritis. The leaves and seed of the *sugar gouta* or *cadoquid* (*Casuarina Bonducella*) are used for certain diseases, and the seeds, powdered and mixed with pepper, constitute a febrifuge. Small senna (*Cassia occidentalis*) is used in asthma, and as a fomentation in some skin diseases. A decoction of the root possesses diuretic properties, and the leaves are used by the negroes, when smeared with a little candle-grease, as a substitute for adhesive plaster.—*Jour. Soc. Arts.*

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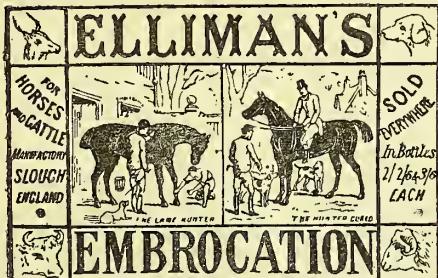
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An analysis of the waters having been made in November, 1886, by Professor Wanklyn, M.R.C.S., corresponding member of the Royal Bavarian Academy of Sciences, Professor of Chemistry, a very important discovery has been made, viz., the presence of Free or Elementary Iodine.

Dr. Wanklyn says—"So far as I am aware, this is the first instance in which free Iodine has been found in appreciable quantity in a natural water. For many years the Woodhall Spa has been celebrated as a valuable remedy in skin diseases. The fact that it is a solution of free Iodine is interesting in this connection, and well worthy of the attention of the medical profession."

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EDITORIAL NOTES.

THE COMPULSORY CURRICULUM : ITS DEVELOPMENT AND MEANING.

THE Pharmacy Bill, by which the Pharmaceutical Society seeks power to impose conditions of education precedent to examination, having come within measurable distance of enactment makes it important to recapitulate the conditions which will probably follow if the power is obtained. These conditions have now received the attention of the Council of the Society almost uninterruptedly since 1880, when the first motion on the subject was discussed. It was in 1872, however, at Brighton that Dr. Attfield read his celebrated paper on "Education and Examination," which focussed the views on compulsory education previously expressed, and gave an impetus to the contemplated scheme through which chemists were to be brought nearer the learned professions. At the meeting of the Pharmaceutical Council in June, 1880, the newly-elected President in the chair, Mr. Schacht brought forward his motion for the appointment of a committee "to inquire into and consider the relation to each other of pharmaceutical education and the pharmaceutical examinations." In his capacity as Vice-President of the Society, and through the courtesy of the President, he had had the opportunity of inspecting the examinations; he had been struck by the surprising ignorance of a large number of the candidates, and a desire to improve this state of matters impelled him to seek a remedy for it. The motion was agreed to in a thin house, seven voting for it and six against it, the latter including Messrs. Gostling, Hampson, and Williams, still members of the Council, and Messrs. Andrews, Hyde Hills, and Sandford. In July, 1881, Mr. Schacht gave publicity to his remarkable monograph on the relations between pharmacy and medicine, in which he stated the opinions that he would express before the Royal Medical Acts Commission were he called upon to give evidence. Assuming that "pharmacy constitutes an integral portion of the medical art," he proposed to educate students of pharmacy and students of medicine together up to a certain point. Students of pharmacy were by his scheme to undergo three years' training in chemistry, botany, *materia medica*, prescriptions, dispensing, and pharmacy, and on passing certain examinations would receive the degree Bachelor in Pharmacy, and have the sole right to dispense the prescriptions of M.D.'s and M.B.'s and to sell poisons. The proposals were dropped, but they have an important bearing on all that follows, and may be considered as the official starting-point of the educational scheme. The report of the committee appointed by the Council in 1880 was brought up in August, 1881, a preliminary discussion upon it having taken place in May. It consisted essentially of two

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parts—first, the case for a curriculum; and second, what that curriculum should be. The case was made out of the failures in the Minor examination during the three years immediately preceding—viz. 741 out of a total of 1,495 candidates examined. As the result of a conference with the professors of the Society and the Board of Examiners for England and Wales, the committee stated, in effect, that failures were due to imperfect mental training, “cram,” or inefficient teaching, and incapacity of the examiners to judge of the knowledge of examinees without knowing what had been their previous training. In the second part of the report the committee recommended (1) that the Preliminary examination should be passed at least three years before the Minor examination; (2) the institution of compulsory courses of lectures on chemistry, botany, and *materia medica*, and instruction in practical chemistry; and (3) division of the Minor examination into two portions, one to comprise the technical (practical dispensing, prescriptions, and pharmacy) and the other the scientific (chemistry, botany, and *materia medica*), the latter to be partly written and partly *virâ roce*. The examination was to be conducted on two separate days. In the discussion upon this report the opposition was so strong that the motion for its adoption had to be modified into “general approval”; and so altered it was adopted. The objections to the scheme were based on the possible illegality of the measure. The opponents maintained that there was no power under the Pharmacy Act to impose the conditions upon candidates. Messrs. Hampson and Williams were those who laid most weight on this argument. The matter was again referred to the committee, who brought up their next report in April, 1882. The recommendations as to the subjects of the Minor examination and the manner of conducting it were practically the same as before. The committee had appointed two sub-committees, consisting of members of the Boards of Examiners and the professors of the Society, to formulate details, which they did in five recommendations, which were briefly as follows:—

1. Requirement of a certificate of three years' apprenticeship.

2. A period of three years between passing the Preliminary and entering for the Minor examination.

3. Courses of lectures and practical instruction in the sciences before mentioned. This recommendation also included a reference to the schools of instruction. These might be (1) schools of science throughout the country, the scope of whose teaching included the points enumerated in the syllabuses; and (2) other schools which might satisfy the Council of “sufficient excellence.”

4. The Minor examination to be divided into two parts, with a minimum interval of six months between them. The first part was to consist of a written examination in prescriptions, pharmacy, theoretical chemistry, and botany. This would be held in centres throughout the country. The second part was to consist of an oral examination in London or Edinburgh in the following subjects, viz. chemistry and practical chemistry, botany, *materia medica*, and practical dispensing.

5. The recommendations to come into force on January 1, 1886.

Attached to the report was an appendix giving syllabuses of the courses of lectures required in the various subjects. There were to be 80 lectures on *Chemistry and Physics*, viz. 20 in physics relating to chemistry, and 60 on inorganic and organic chemistry, the whole of which would extend over a period not less than five months, and each lecture had to be of an hour's duration. *Botany* was to have 48 lectures, and *Materia Medica* 40 lectures, in both cases of the same duration as in chemistry. Instruction in *Practical Chemistry*

was to extend over five months, three hours daily, or three months with five hours daily. In all cases the teacher was forbidden to give a pupil a certificate unless he had attended four-fifths of the course. *The scope of the teaching extended over the requirements of the present Major examination.*

The proposals were again opposed by an important section of the Council. The first three recommendations were adopted, but the fourth was not. The annual meeting in May approved of the action of the Council so far. The committee was again appointed by the new Council in July, Mr. Carteighe having meanwhile been elected President of the Society. The Privy Council had also asked the Council's assistance in the drafting of a Poisons Bill, which the Council agreed to give. The next that was heard of the curriculum scheme was in the Poisons Bill of 1883, which the Council had drafted. In this there was a clause to give power to the Pharmaceutical Council to sub-divide examinations and impose conditions precedent to examination, the intention being to legalise the recommendations of the curriculum committee. It was also proposed to give the title “pharmaceutical chemist” to persons obtaining the qualification. The Bill was not accepted by the Privy Council. In March, 1883, the committee again reported to the Council. They now recommended that the first part of the Minor examination should be a written one in prescriptions, pharmacy, and theoretical chemistry; then a year was to elapse, during which the curriculum had to be completed, and the candidate at the end of the period might enter for the second portion of the examination (practical and *virâ roce*) in practical dispensing, botany, *materia medica*, and pharmacy. The curriculum scheme of April, 1882, was adopted, the only modification being that instruction in practical chemistry might be spread over ten months with two hours daily. It was proposed to enforce the new regulations after December 31, 1887, and to allow all who had passed the Preliminary examination before December 31, 1883, to enter for the present Minor examination *sinc curriculo*. Messrs. Greenish, Hampson, and Williams again opposed the curriculum because of the want of legal powers to enforce it, but the report was adopted by a large majority. In the May following the Council received a copy of Dr. Greenhow's report to the Privy Council on the examinations in London, in which he strongly condemned the imposition of a compulsory curriculum upon candidates for the Minor examination. At the same time a copy of the report of Dr. Maclagan on the Edinburgh examinations was submitted, in which he stated that he was “impressed with the absolute necessity” for a regular curriculum of study. The scheme came up for discussion at the annual meeting in May, and there was some opposition to it, which, however, was defeated. In August following, the hope of getting the curriculum sanctioned by Act of Parliament having been lost, the Council considered what they could do by by-law, and resolved to take the opinion of the solicitor upon the matter; and two months later a committee was appointed to frame, with the assistance of the solicitor, such by-laws as would give effect to the resolutions of March. It was pointed out by several members that fresh legislative powers would be required before this could be done, and that the solicitor had so stated; but Messrs. Borland, Churchill, Greenish, and Hampson (Mr. Williams not voting) were the only members who opposed the motion, and it was carried. The by-laws were framed in due course, and included the recommendations of March, 1883. The history of these by-laws is so well known that all that need now be said of them is that the Privy Council maintained the opinion of the minority, that the legal powers of the Society did not allow them to impose a compulsory curriculum.

In proposing a few months ago that fresh legislative powers should be sought in order to enforce a curriculum, Mr. Schacht stated that all that had hitherto been formulated need not be taken up again. But the scheme already put forward has entailed so much work, so many years of consideration, and such emphatic resolutions on the part of the Council that the wonder will be if it is not adopted in all but the title. As it stands at present the intention is to make the qualifying examination similar to the Major in all but the name. There may be some modification as to details, especially in regard to the subjects of the written portion of the examination, and in the practical work of the second, so as to provide for Dr. Greenhow's recommendations, but a year's study at a school of pharmacy for all pharmaceutical students appears to be an essential outcome of the Pharmacy Bill should it become law.

THE PHARMACY ACTS AMENDMENT BILL.

THE Pharmacy Acts Amendment Bill occupied the fourteenth place in the "Orders" of the House of Commons for Tuesday, but owing to the numerous notices of motion and important discussions on harbours of refuge and the Sunday delivery of letters, it was not possible to reach the orders of the day at that sitting. It came out, indeed, in the early part of the evening, that the Government had agreed to allow a count out, in consideration of the arduous work of the previous week; and accordingly business was brought to an abrupt close at twenty minutes to eleven. Dr. Farquharson, who has charge of the Pharmacy Bill, was dining that evening at the Eighty Club dinner, and though the president of the Pharmaceutical Society was in the lobby in the early part of the evening, his influence was not powerful enough to spur weary legislators or convince them of the importance of his Bill. Meanwhile there are indications that the Bill does not very well stand close scrutiny. The eminent Dr. Tanner, who at first declared his intention to support the Bill, and who relaxed his systematic blocking expressly in its favour, found out subsequently that it "demanded investigation," and was "not at all satisfied with it." And now comes Mr. Gent-Davis, member for Lambeth, a borough which contains some pharmaceutical schools, with a motion to postpone the committee stage for six months—in other words, to reject the Bill. As Mr. Gent-Davis voted with Dr. Farquharson on April 6, this is another example of the vacillating way in which members of Parliament make up their minds. A motion similar to that of Mr. Gent-Davis's has been put down by Mr. Kelly. Should the Bill, however, go into committee, Mr. James Ellis, one of the members for Leicestershire, will move the omission of the following words from clause 1, viz.: "of their having duly attended courses of instruction in chemistry, botany, and materia medica, and." Also to add to the same clause the words "or in public hospitals or dispensaries." We print the clause with the words proposed to be omitted in brackets, and those proposed to be added in italics.

"The powers of the Act, passed in the fifteenth and sixteenth years of the reign of Her present Majesty, intituled an 'Act for Regulating the Qualifications of Pharmaceutical Chemists,' and of 'The Pharmacy Act, 1868,' with respect to examinations required for obtaining certificates of qualification under the said Act, or either of them, shall be extended so as to provide for the division of the said examinations into Preliminary and other parts of the same; also for periods of time and study between any of the said parts; also that persons presenting themselves for a final part of an examination shall have deposited with the Registrar under the said

Acts certificates [of their having duly attended courses of instruction in Chemistry, Botany, and Materia Medica, and] having for not less than three years in the whole served in the capacity of apprentices or pupils in the open shops of Chemists and Druggists," or in public hospitals or dispensaries.

The same member also proposes to leave out the following words in the second clause of the Bill:—"Also to prescribe the courses of instruction in chemistry, botany, and materia medica, to be duly attended as aforesaid." It is evident that Mr. Ellis has very exactly appreciated the intentions of the framers of the Bill, and that it is his desire just to knock the bottom out of it.

MEDICINE STAMP DUTY.

MESSRS. NEWBERY & SONS have been good enough to lend us a new series of letters which have passed between themselves and the Solicitor to the Board of Inland Revenue, and from these and from other sources it seems possible to extract a few items of general interest.

Capsules have attracted the attention of the Board lately, and we have had to report a rather extensive raid on those chemists of Cardiff who had yielded to the seductive influences of the excise officer, and had sold him, or, as in some instances, had procured for him from London or Bristol, the particular remedy which he pined after. A fortnight ago Messrs. Evans, Lescher & Webb announced in our columns that their well-known "Savarese's Capsules" were officially declared to be not liable to medicine duty. As Messrs. Newbery's "Churchill's Capsules" had been authoritatively condemned to duty, the latter firm naturally inquired the reason of this apparent inconsistency. The explanation, which was obtained partly by letter and partly verbally, showed that the Board had considered the matter very closely, and had decided it with full regard to strict justice. They allow makers to claim proprietary rights in and to recommend to the full the capsules themselves; but when, as often happens, the label fails to distinguish between the capsule and the medicines contained therein, and when in such cases remedial virtues or proprietary rights are professed, the medicine becomes liable. This seems to be a just principle so long as compound medicines in capsules only are thus treated; but we understand that the Board have declared to be liable certain capsules containing pure drugs only. We cannot recommend anyone to contest the matter with the Board; but this seems to us to be a claim which could not be maintained in a court of law. Pure drugs are exempt, and may be labelled in any manner without incurring liability under the Medicine Stamp Act; and they do not in fact become any the less pure drugs if they are enclosed in a capsule. To contend, as we suppose the Board do, that the capsule in such a case makes the preparation compound seems to be a disregard of physical facts which is contrary to the letter and spirit of the Act.

Another interesting fact brought out in some of Messrs. Newbery's more recent correspondence is that the Board do not accept the Lamplough case as conclusive that all effervescent preparations are necessarily exempt from medicine-stamp duty, though this has been practically the inference of the trade. Lamplough's Saline was declared to be exempt after a long legal contest because the Court of Appeal considered that it came within the following description:—"Waters—*videlicet*, all artificial mineral waters, and all waters impregnated with soda or mineral alkali, or with carbonic-acid gas; and all compositions in a liquid or solid state to be used for the purpose of compounding or making any of the said waters." Articles so described were

at first scheduled in the Medicine Stamp Act, but a subsequent Act repealed the original Act to the extent of removing that particular section, leaving, however, the category "Medicated Herbs and Waters" occurring in what Lord Bramwell described as "the tail of the schedule." The Board have accepted their defeat as far as such preparations as Lamplough's Saline, Eno's Fruit Salt, citrate of magnesia, and such like articles are concerned. But we understand they claim that the decision does not rule the case of the more fully medicated preparations, that is, if such produce waters which, though they may be impregnated with mineral alkali and with carbonic-acid gas, contain something besides of real medical virtue.

Lastly, we may mention that Messrs. Newbery have obtained from the Board a statement that the subjoined label would not render the preparation liable to medicine-stamp duty:—"Red Mixture; for the liver and kidneys. Dose: One tablespoonful to be taken in a wineglassful of water three times daily, half an hour before food. T. Johnson, London, W."

TURPENTINE INDUSTRY IN FRANCE.

AN impression prevails in many quarters that the French resin and turpentine industry is now almost extinguished; but such is by no means the case, although on the English market the French article has been superseded by that obtained from the United States. But in France itself the national product is protected by a duty of 2s. per cwt. on foreign turpentine, which secures to the French commodity an undisputed supremacy on the home market, and a not inconsiderable proportion of French resin and turpentine still finds its way to other continental countries.

In France the turpentine and resin industry is confined to two departments—the Gironde and the Landes, where the *Pinus maritima* covers large tracts of soil, one-third of the area of the Gironde (one of the largest departments of the Republic) being overgrown with pine-forests. In this latter department there are about sixty-five turpentine distilleries, and in the Landes 116.

To obtain the crude material—locally termed *gemme*—the operator, by means of a peculiarly-shaped axe, makes a longitudinal incision in the tree, which process he repeats at intervals, the last incision being always higher than the preceding one, until, after four or five years' working, a height of about 6 or 7 feet is reached. From these incisions a resinous liquid exudes, and is collected in an earthenware pot, where, by exposure to air, it assumes a concrete form, and is then taken to the distillery, usually situated in the centre of the forest. A rough process of preliminary purification is generally applied before the *gemme* is placed in a copper still, where, by the action of heat, the volatile oil of turpentine is separated from the residue, the latter being known as colophony or resin. The annual production of crude turpentine in south-western France is estimated at about 14,000 tons, and varies but slightly from year to year, as all pine-forests are carefully worked, and their area has been kept almost intact for a long time. From 30 to 35 per cent. of the French product is exported, but outside France the American article leads the market, and the Bordeaux rosin exports show a decline from 135,712 cwt. in 1885 to 103,636 cwt. in 1886. As the turpentine industry affords employment to a large number of persons in the Gironde and the Landes, the depression in the Bordeaux export trade is severely felt there. Besides, such is the preponderant influence of the American industry that even in France the price of turpentine and resin is regulated by the

London quotations, our market being the principal European depot for the American product. In common with most articles of American produce or consumption the turpentine and resin markets are very considerably influenced by speculative movements, and with a view to impart greater stability to the former—so far, at least, as their own country is concerned—the French colour and varnish trades have recently taken steps to establish a regular market at Paris for turpentine products. At present the French centres of this commerce are Dax, a small inland town of some 10,000 inhabitants in the department of the Landes, and Bordeaux, which is the principal shipping port; but the local customs governing the trade in those towns are of so antiquated a nature as to seriously impede, it is said, the welfare of the industry.

Opposition Views. Two circulars have been distributed to members of the House of Commons in opposition to the Pharmacy Acts Amendment Bill. One gives a series of quotations from the annual reports of Dr. E. Headlam Greenhow from 1880 to 1886 inclusive, showing the opinion of that gentleman, repeatedly expressed, to the effect that the present Minor examination is a sufficient test of competence, and that a compulsory curriculum is not required. The other circular states the following arguments against the Bill, and supplements these with the report of Dr. Clark's speech on the second reading, from THE CHEMIST AND DRUGGIST. The reasons against the Bill are thus stated:—

"Pharmacy Acts Amendment Bill, 1887.—Before acquiring the legal title of 'chemist and druggist,' or the right to open an ordinary chemist's shop, any person must, under the existing regulations, pass a Preliminary examination, in which Latin is included; and after having been for three years practically engaged in the translation and dispensing of prescriptions, must then undergo a severe qualifying examination, both *vivâ voce* and practical, in the following subjects:—Chemistry, botany, materia medica, pharmacy, prescription reading, and dispensing.

"Is not this a sufficient guarantee for the safety of the public?

"The degrees 'Master of Arts,' 'Doctor of Science,' 'Doctor of Laws,' and others, are granted to students who can pass the respective examinations of the University of London, whether they have obtained the knowledge required by private study or by any other means in their power; and yet the Council of the Pharmaceutical Society are endeavouring, by means of this Bill, to obtain powers to enforce an expensive curriculum on all intending chemists, although the average business produces but a meagre income.

"Of course, if a monopoly is created it will be an advantage to those who already have the qualification, including the Council and members of the Pharmaceutical Society, who are all chemists.

"Let the stringency of the examinations be increased if necessary, but do not let a costly curriculum be imposed, whereby students of small means, but perhaps large capabilities, will be shut out from a profession for which they are eminently suited.

"Members of Parliament are earnestly requested, both in Committee and at the third reading—if that stage be reached—to

"OPPOSE THE BILL,

"which passed the second reading about 3 A.M. on Tuesday, April 5, 1887, in a house of ninety-eight members, forty-five of whom represented constituencies in Ireland, to which country the Bill does not extend."

The circulars are both issued anonymously, and we have not ascertained their source.

* *

Chinese Wood-oil. In the course of an interesting paper on the botany of Cremona violins Mr. Walter Gardiner mentions that the tung or wood-oil of China is alleged to be the principal factor in the varnish of these celebrated instruments. The oil in question is derived from the seeds of a Euphorbiaceous plant (*Aleurites cordata*). This is a deciduous tree which grows in China and in the

mountainous parts of Japan, and is cultivated for the sake of its oily seeds. In Japan it is especially cultivated in the provinces of Echizen, Wakasa, Suruga, Iwami, &c. In China it is used in great quantities, and is also exported from various centres—for example, Hankow, Shanghai, Chefoo, Chinkiang, and Ningpo. The oil is poisonous, and of a purgative nature. It also possesses other remarkable qualities. When fresh it is devoid of colour, odour, or flavour, but when exposed to the action of light it assumes after a time a brown tint and suffers chemical change. With its specific gravity of .9362 it is actually the densest of the drying oils, and in the latter particular its drying properties are said to exceed those of any known oil. Heated from 100° to 200° C., out of contact of air, it retains its fluidity after cooling, but in contact with air it solidifies, melting again at 34° C. The Chinese employ it very largely for varnishing woodwork of all kinds, from small boxes to large junks. The Japanese, on the other hand, use it for lighting. Chinese wood-oil must not be confounded with ordinary wood-oil, or gurjun balsam, which is used for such purposes by the Malays as tung oil is used for by the Chinese. There was a specimen of tung oil in the Japanese section of the Health Exhibition. It was presented to the Pharmaceutical Society, and was examined by Mr. R. H. Davies, who found it to possess the peculiar properties above described. Mr. Gardiner throws out the suggestion that the oil should be imported into this country.

* *

A Jubilee Ode. The Edinburgh Pen and Pencil Club have produced, as their loyal contribution to the Queen in this jubilee year, an ode, set to music by Mr. William Harrison, the words of which are by one of the representatives of Scotland on the Pharmaceutical Council, Mr. Henry Bellyse Baildon, B.A. We subjoin the literary part of this composition, in the hope that it may assist the Pharmaceutical Jubilee Fund :—

Queen, lady, Empress, woman true,
Wife, mother, widow sad, to you
The coldest heart grows warm that
hears

A nation greet you, "Sovereign,"
through
These fifty years.

We search the pictured hieroglyph,
And question mummies swart and stiff
Of ancient Pharaoh's tomb that rears
Its head to boast his reign, "Say, if 'Twere fifty years!"

And, if they answer boldly, "Yea,"
Rejoin we, "Was your Sovereign's sway
The bound of sundered hemispheres—
So vast night hid it not from day,
For fifty years?"

Her Majesty's power is admittedly very great, but the last stanza of this ode attributes to her a control over destiny which even poetic licence can hardly justify.

* *

Trade Mark Classes. The decision of Mr. Justice Stirling in the application made before him by the Sanitas Company in reference to an alleged infringement of their trade-mark by George Condy illustrates a curious and a not quite satisfactory feature of trade-mark law. In December last the Sanitas Company obtained an injunction against George Condy, restraining him from infringing their trade-mark. The defendant was advertising a disinfectant which he termed Condi-Sanitas, and Mr. Justice Kay, in granting the injunction, commented in strong terms on what he termed "this act of dishonesty." Since then George Condy has advertised a preparation which he terms the "Condy-Sanitas Effervescent Health Protector Saline," and the Sanitas Company claimed that in so doing he was using a title which would lead the public to believe that the article was manufactured by them. They applied to the Court, therefore, for the committal of the defendant on the ground of breach of the injunction. Now the Company have registered their title in Classes 2 (chemical substances used for agricultural, horticultural, veterinary, and sanitary

purposes), 4 (oils, &c., used in manufactures), 11 (apparatus, &c.), 16 (earthenware, &c.), 47 (soaps, &c.), 50 (miscellaneous), but they have not registered it in Class 3 (medicines), and Mr. Justice Stirling therefore declines to make the order they ask for. This decision does not, we presume, necessarily give the defendant a legal right to the use of the title in the manner in which he has latterly employed it, but it tends in that direction; and it certainly suggests the question whether the Company would not have had a better chance of success under the old system of equity than they have now under the carefully-defined but still very vague generalities of codified trade mark law.

* *

Club Practice Mr. M. G. Biggs, of Wandsworth Common, writes to the *British Medical Journal* regarding the scale of payment in club practice, and gives the following particulars:—"The figures are taken from last year's entries, and include five clubs. Each member pays one shilling a quarter.

	Number of Visits	Attendances at Surgery	Total Club Money paid £ s. d.
First quarter ..	.. 124	324	12 5 9
Second quarter ..	.. 62	187	11 13 9
Third quarter ..	.. 14	183	12 4 9
Fourth quarter ..	.. 40	179	12 7 9
	240	873	48 12 0

Highest quarterly total of members, 247.

Medicines Supplied.

Bottles	Powders	Pills	Boxes of Ointment	Blisters	Plaster
1,103	2	54	21	2	1

"The number of members varies slightly; the highest quarterly total was 247, and the lowest 233, and the permanent annual number would be about 240." Mr. Biggs says that, "adding the visits and attendances together, and dividing into the total amount received, will give about 10½d. for each personal professional attendance, and it must also be remembered that some of the visits mean long distances. To put it in another way: Take the number of bottles supplied, which only falls short of the total attendances by 10, and this will give just over 10½d. a bottle, a price for which, I have been informed, a chemist would dispense his medicines all round, so that, from a pecuniary point of view, I have given powders, pills, ointments, &c., and all the professional skill as a free gift, and anyone who knows what large bottles the patients bring will not think 10½d. a large sum for each one."

Obituary.

[Notices of Marriages and Deaths are inserted free if sent with proper authentication.]

BROOKS.—At 355 Wandsworth Road, S.W., on April 14, Charles Brooks, chemist and druggist. Aged 36.

LLEWELLYN.—On April 15, Mr. David Llewellyn, Llantrisant, Glamorganshire, chemist and druggist. Aged 38.

MICHOT.—From Mons, in Belgium, the death is announced of the Abbé Norbert Michot, an eminent Belgian botanist, whose work on the flora of the Hainaut enjoys a high reputation in scientific circles. The Abbé attained an age of eighty-four years.

WEST.—At Parkfield Street, London, N., on April 14, Henry Charles West, chemist and druggist. Aged 45.

Personalities.

THE will of Mr. William Dunkley Paine, formerly of Mincing Lane, colonial broker, has lately been proved, the personality amounting to 30,789.

MR. S. M. BURROUGHS, of the firm of Burroughs, Wellcome & Co., proposes to leave England on Saturday for a month's vacation in the United States. Dr. Witte, the head of Messrs. Burroughs, Wellcome & Co.'s factory, will accompany him on the trip.

Trade Report.

Note to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollect that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., April 21.

THE impression prevailing in many quarters that as soon as the Easter holidays were at an end there would be a fresh revival of business in Mincing Lane, has not been realised. From every side complaints are heard that business is anything but lively, and that speculation is almost entirely absent. The drysalteries auctions on Tuesday passed off very quietly, nor has there been much doing privately in drysalteries. *Cutch* fails to improve, and *Shellac*, which seemed to be decidedly firmer the end of last week, owing to an improvement in the Eastern exchange, has since relapsed into its previous lifeless condition. *Turmeric* remains exceedingly cheap, but *Gambier* shows some greater steadiness. The chemical trade is very quiet, and if it were not that manufacturers are still kept busy executing orders which they booked in the commencement of the year, the position would indeed be somewhat discouraging. *Oxalic acid* and *Nitrate of Soda* are firm, while *Camphor* remains in a very sound position. *Tartaric acid* still maintains its value, although tartar materials have declined in price, and are offering in abundance. *Citric acid* is decidedly lower, and if it should be true that lemon juice is offering at the rate of 17s. 10s. f.o.b., Messina, a further fall appears likely, as the relative prices of juice and acid are out of proportion in that case. It is reported that the combination among the producers of nitrate of soda in South America has come to an end. *Morphia* is still quoted at 6s. 6d. by the makers, although a few second-hand parcels offer at lower rates, but *Opium* shows further weakness. *Yellow prussiate of potash* has made a slight advance, but *Carbolic acid* in crystals, *Sulphate of ammonia*, and *Sulphate of copper* are lower. The English makers of *Quinine* have lowered their official quotations, thereby bringing their prices more in harmony with those of the second-hand holders.

The drug sales held to-day, after an interval of four weeks were very lengthy, and could not be brought to a close, five catalogues being held over until Friday. The auctions excited much less interest than might have been expected, and a dull feeling prevailed during the greater part of the day. There has been some talk to dispense with the fortnightly drug sales and to replace them by monthly auctions. It is suggested that such a course would tend to ensure a more lively competition at the sales and at the same time be of advantage to the wholesale trade, inasmuch as it would give them time to get rid of the bulk of their purchases before the following auctions, and thereby stimulate speculation. It is also thought in some quarters that the lots of drugs offered for sale should be made larger so as to enable the trade to get through the auctions with more promptitude. There is much to be said on both sides of these questions, but it is questionable whether the trade at large—*i.e.* importers, brokers, and druggists—would be willing to make any alteration in the present system of fortnightly auctions.

In to-day's sales *Cope aloes* and *Ipecacuanha* sold at a pronounced advance. *Honey* was steady, and it is said that privately higher prices are paid. *Musk*, *Ergot of rye*, and *Copaiba balsam* are very firm, but *Senna*, *Cardamoms*, *Annuato seed*, *Buchu*, *Cascarilla*, and *Gum ammoniacum* are all lower in value. *Cod-liver oil* and *Olive oil* are again cheaper, but *Petroleum* is steady, and *Turpentine* has made no advance.

Among essential oils, the principal alteration to be mentioned is a sharp advance in *Oil of star anise*. *Neroli* has likewise improved, while *Cassia oil* and Italian essential oils are steady, but *Peppermint oil* is rather lower. Among spices *Cloves* have advanced and *Cassia lignea* declined in value. The first *Indigo* sales of the year which took place this week passed off in a very satisfactory manner.

ACID (CARBOLIC).—There is a good demand for liquid acid, which is held at 1s. 6d. per gallon; but crystals are lower, owing to absence of demand, and may be bought at 1s. to 1s. 1d. for bulk, and 1s. 4d. to 1s. 5d. in 1 lb. bottles.

ACID (OXALIC) remains very firm at 4d., while *sal aceto* is obtainable at 6d. to 6½d.

ACID (PICRIC) in powder or paste is quoted at 1s. 5d. per lb., while for crystals 1d. above that price must be paid.

ALOES.—Thirty gourds true *Barbadocs* aloes, a grade now rarely seen in the open market, changed hands at 5l. 10s. per cwt. for very good and 80s. for fair chocolate colour. The arrivals of aloes from the *Capo* have been very small lately; the steamer just arrived had none on board, and under these circumstances the lots of old import offered in sale to-day realised an advance of about 1s. for good and 2s. to 3s. for medium qualities. Fine hard fetched 28s. 6d. to 29s.; fair, 26s. 6d.; and ordinary soft and drossy from 20s. down to 4s. 6d. per cwt. A supply of 244 packages ordinary *Curaçao* aloes was sold without reserve at 12s. to 32s. per cwt. Twenty-nine kegs good coloured *Socotrine* brought from 5l. 15s. to 7l. 10s. per cwt.

ALUM.—There is only a moderate business doing, but the article maintains its price at 5l. 10s. for loose lump, and 6l. 2s. 6d. for ground alum.

AMBERGRIS.—Fine pale amber is wanting; small lots common black quality find buyers at 41s. per oz.

AMMONIA.—*Carbonate* is very quiet at 4d. per lb., less a heavy discount; *sal ammoniac* quiet but firm, at 36s. and 34s. for first and second qualities. *Sulphate* still continues to fall, 11l. 5s. to 11l. 10s. being now quoted in London, and 11l. 1s. 3d. to 11l. 2s. 6d. at Hull for 24 per cent. grey; nor does there seem any likelihood of a speedy improvement, for the demand for spring consumption had been almost entirely provided for by the middle of March, and since then the orders have been of the most meagre character, and utterly insufficient to support the market. There is nothing doing in Beckton sulphate; the brand, officially quoted at 12l. 7s. 6d., is out of the market, but other London makes are offered at fully 1l. per ton lower. The high prices reached in the first quarter of the year were due to a large extent to the necessities of shippers who were under engagements contracted in the autumn of 1886, and no such high prices were paid by continental consumers for any large quantity. Had the consumers supplied themselves from hand to mouth, it is almost certain that the high figures would never have been reached.

ANISEED is well inquired for on the spot, but abroad the quantities offered are in excess of the present demand. Good *Russian* seed realises 24s. to 25s. 6d., and *Alicante* 60s. per cwt., the latter being about 5s. dearer since the beginning of the month. *Star-Aniseed*.—The position in China is very firm, and the article seems scarce on the Macao and Hong Kong markets. Exports this season, 1,285 cases, against 2,595 cases in 1885-6. In auction 37 cases ordinary broken Chinese star anise were held at 80s. per cwt.

ANNATTO.—About half a ton fairly good dry *Ceylon* seed was quitted at 2½d. to 3d. per lb., a rather lower price than that ruling at the last auction. For 18 baskets fine bright *Pará* roll 1s. 8d. per lb. was refused, owners holding out for 2s. per lb.

ARSENIC remains firm, 11l. 10s. per ton being paid for powdered white.

BALSAMS.—*Copaiba*.—A successful movement has, it appears, been set on foot at Hamburg for again advancing the price of this article. Pale *Maracaibo* has been sold on that market at the parity of 1s. 7d. per lb., while 1s. 5d. is now asked for thin *Pará* in barrels. A few packages were offered at the auctions, but found no purchasers. For 2 casks

old dark copaiba 1s. 11d. per lb. is required, while 1s. 6½d. was refused for 3 cases thin pale quality. Peruvian balsam remains quite neglected, while Storax and Tolu are in much the same condition.

ELEACHING-POWDER retains its value of 8l. 15s. to 9l. There is a very steady business doing, and the exports show a satisfactory increase as compared with 1886.

BORAX has not yet improved. Best English brands are quoted at 29l. to 31l., but second-hand holders offer below those quotations.

BUCHU has arrived in quantity, a steamer arriving to-day bringing no less than 131 bales. The latest supplies show plainly that the leaves have been collected hastily, probably with a view of profiting of the recent favourable position of the market. More than 120 bales were shown to-day, which were heavily mixed with stalks, fruit, and stones. The demand has apparently ceased altogether for the moment, for, although offers of 5d. per lb. were solicited, no one was willing to pay that price.

CAMPHOR (CRUDE) is very firm, although no change has yet occurred in the quotation. At Hong Kong there is only a stock of 45 piculs Formosa (Chinese) camphor left, while a good business has recently been done there in the Japanese variety. An improved inquiry for export to India has set in, and prices are rather dearer. The total exports of camphor for the season 1886-87 have been 4,739 cases, against 6,474 cases for the corresponding period of 1885-86.

CANARY SEED.—The demand for the home trade has been very weak during the last fortnight, while continued supplies come in both from Holland and from Morocco. In addition to these we are now receiving regular shipments from the River Plate, and the quality of this variety is gradually improving. Under these circumstances stocks of Turkish seed are difficult to dispose of, and only for speculative account and at considerable reductions in values can substantial transactions be brought about. In the ordinary trade the price must be set down at about 6d. below our last quotations—viz., Turkish seed, 45s. 6d. to 49s.; Morocco (Barbary), 51s. to 52s.; Dutch, bold 50s. to 54s., small grained 49s. to 50s. per 464 lbs. ex warehouse, and maintains its value fairly. Spanish seed is now more freely offered, and even at 55s. a good quality can be obtained, while the best would still be worth 60s.

CANNABIS INDICA.—There is a plentiful supply of old brown tops, but the demand is of the smallest, and quotations show no change.

CANTHARIDES quiet, at 6s. 6d. to 7s. for Russian and 3s. 6d. for Chinese. A large proportion of the lots now offering is old and wormy.

CARAWAY SEED is in better demand, owners abroad showing but little more inclination to realise. Dutch seed still fetches 33s. to 35s. per cwt.; Mogadore, 27s. to 27s. 6d.; and Russian, 27s. to 29s. per cwt., ex warehouse.

CARDAMOMS.—A very heavy supply of over 400 packages, together with the knowledge that the shipments from Ceylon are assuming enormous proportions, caused a sharp decline, ranging from 3d. per lb. on good to 6d. per lb. on ordinary qualities. Quite half of the quantity offered remained unsold, the trade not caring to bid. Good Ceylon Malabar, plump pale medium to bold, realised 2s. 5d. to 2s. 6d. per lb.; fair, slightly specky ditto, 2s. 1d.; good boldish brown, 1s. 7d.; small pale, plump and long mixed, 1s. 3d.; small, 1s.; brown and damaged, 9d. per lb. Good medium-sized brownish true Malabar fetched 2s. 2d., and seed, 1s. 7d. per lb.

CASCARILLA is decidedly cheaper. Good thin partly silvery bark could not command a higher price than 26s. 6d. per cwt., while ordinary damaged bark realised 18s. per cwt.

CASSIA LIGNEA has experienced a fresh decline of 1s. to 1s. 6d. per cwt., a bid of 24s. per cwt. being accepted for a parcel offered by public sale this week. In China, latest mail advices say the demand is extremely slack; values have already fallen 6d. per cwt., and, unless the demand should revive, a further fall may be expected. The exports of cassia lignea have been 55,468 piculs for the season 1886-87, against 38,362 piculs for the same time last year.

CASSIA FISTULA.—Eighteen bags old pods sold without

reserve at 1s. 6d. per cwt.—a high price considering the quality.

CINCHONA.—The parcels offered in sale to-day were nearly all of South American origin. True flat yellow Calisaya, rather dusty to bold, realised 2s. 1d. to 2s. 2d. per lb.—a very good price. Guayaquil crown bark, in long thin grey quills, fetched 7d. to 8d. per lb.; ditto, in fine bright mossy quill, 1s. 10d. per lb. For 30 bales damaged common dusty Maracaibo 3d. per lb. was paid, and 4d. to 5d. per lb. for fair but broken Lima quills. The shipments from Ceylon from October 1 to March 24 are given as follows:—1886-7, 7,383,907 lbs.; 1885-6, 6,913,676 lbs.; 1884-5, 4,570,343 lbs.; 1883-4, 3,027,988 lbs. The arrivals from the interior to Colombo are still heavy, but it would seem that during the last fortnight stocks have been accumulating at that port, and the latest shipments show a slight falling off. The exports of cinchona bark from Java by private planters are officially stated to have been as follows:—

	1884 Kilos.	1885 Kilos.	1886 Kilos.
To Holland ..	190,789	403,583	617,384
" England ..	22,214	83,925	210,479
" elsewhere ..	—	530	4,575
	—	213,003	488,038
			832,438

It will be seen that the produce from plantations other than governmental has quadrupled since 1884, and almost doubled since 1885. It is also a significant fact that private planters in Java are evincing a steadily growing preference for the London as compared to the Amsterdam market. In 1884 they shipped about 90½ per cent. of their produce to Holland and 9½ to England, in 1885 the proportion was 83 and 17 per cent., and in 1886 74½ and 25½ per cent. These figures do not include the bark re-shipped to London from Holland.

CIVET.—Several parcels were shown to-day, and bought in at 7s. 3d. to 7s. 6d. per lb. Somewhat less would probably be accepted for good quality.

CLOVES are dearer, 11d. to 11½d. being willingly paid for fair to good bright Zanzibar. The following is the present statistical position of the article:—

	1887 Pkgs.	1886 Pkgs.	1885 Pkgs.
Imported from January 1 ..	4,127	1,004	10,855
Delivered " " ..	3,167	5,098	5,048
Stock, April 9	6,971	6,458	12,526

COPPER (SULPHATE) is now obtainable at 14l. for ordinary firsts.

CREAM OF TARTAR very quiet, at 123l. for first quality.

CROTON SEED.—Several parcels were catalogued for this day's sale, but the bulk was not reached, only a few bags Ceylon seed of mixed quality being sold at 15s. per cwt.

CUBERS.—Sixteen bags genuine berries, but shrivelled and mixed with stalk and a small proportion of foreign fruit, were bought in at 20l. per cwt. Two cases mixed fruit, partly bold grey berries, for which 100s. was first offered, gave rise to some lively bidding, and were ultimately knocked down at the very high price of 17l. per cwt., while two bags mouldy stalks and dust fetched 6s. per cwt.

CUMIN SEED has remained steady, at 45s. per cwt. for Maltese; 25s. to 26s. is now asked for Greek, and 27s. for East Indian, being an advance of about 1s. for these varieties.

DILL SEED steady; fine quality is now obtainable at 10l. per ton.

ERGOT OF RYE.—No sales were made at the public auctions, although privately a fair business is reported. Fair Spanish ergot was bought in at 1s. 2d. per lb.

FENNEL SEED.—There is a fair trade doing in this article. East Indian is held at 21s. to 22s. per cwt., and European at 26s.

FENUGREEK SEED.—The trade is quiet and the demand small, but as no fresh supplies are to hand values are fairly maintained at 8s. to 8s. 6d. per cwt.

GALANGAL shows no improvement, and is offering in quantity at 7s. per cwt., at which rate business is reported.

GALLS.—A heavy supply of *Turkey* galls was placed in sale, but nearly the whole of it was bought in over value. *China* galls are steady. The Shanghai market is reported bare of stock, while only about 100 piculs remain at Hong Kong. The total shipments from China so far are 18,827 piculs, against 18,389 piculs in 1885-6.

GUARANA.—Two cases were apparently sold at 4s. 6d. per lb.—a good price, the new crop being so near.

GUM AMMONIACUM.—About one-third of the 48 cases offered sold at much lower prices; good free drop, slightly block, 26s.; darkish seedy block, 19s. to 15s.; fair pale siftings, 8s.; dark blocky garblings, 6s. per cwt.

GUM ANIMI.—At the last public sales only 15 cases were offered, of which 12 cases sold at an advance of 5 to 10 per cent. over the previous valuations. For good pale sorts 14*l.* 2*s.* 6*d.* was paid; dull ambery to amber realised 13*l.* 17*s.* 6*d.* to 10*l.* 10*s.*; medium amber to pale 10*l.* to 11*l.* 10*s.* per cwt.

GUM ARABIC.—Three cases small olibanum-scented *Aden* sorts sold at 85*s.* per cwt.; very fine pale frosted *Australian* drop, 86*s.*; dull and dusty brown ditto, 68*s.*; ordinary glassy to sea-damaged block, at 60*s.* to 46*s.* per cwt. Under date of April 11 the position of the Cairo market is thus described:—About 112 small serons of inferior quality arrived from the interior recently, but are still unsold, the owners not being in town. Prices, therefore, are merely nominal, and for the moment transactions seem to be impossible, pretensions of owners being very high. Some further small lots are expected to arrive here after some time. 160 serons *Ghezirah* gums arrived *vid Massana*, and have been sold at a price equal to 70*s.* per cwt. f.o.b. Alexandria, which shows a sudden dropping of the prices for this quality.

GUM BENJAMIN is very quiet; the supplies of fine *Siam* gum are largely in excess of the requirements, and nothing of this variety was sold. Two cases fair packed grey *Sumatra* realised 7*l.* 15*s.*, and twenty-five cases very ordinary nondescript resin, 35*s.* per cwt.

DRAGON'S BLOOD.—Not a single case of the 26 packages offered was sold. Bright-coloured but drossy cake is held at 6*l.*, and good bright but rather seedy cake at 8*l.* per cwt.

GAMBoge is rather scarce. Twelve cases inferior damp pipe sold at 9*l.* 15*s.* ordinary dull ditto, 9*l.* 2*s.* 6*d.* per cwt.

GUM MYRRH remains steady at 5*l.* for good pale *Aden* sorts; fair brown siftings have been sold at 33*s.*, and dark packings at 37*s.* 6*d.* per cwt.

HEMP SEED has ruled somewhat firmer for spot delivery, the demand having become more active. Offers for shipment are, however, still on the increase, and buyers seem to operate with extreme reserve. Good seed realises 20*s.* 6*d.* to 22*s.* per 336 lbs. ex warehouse, and finest *Dutch* 38*s.* to 40*s.* per imp. qr.

HONEY is rather firmer, large quantities of pale *Californian* having been sold privately at 32*s.* per cwt. In sale about 200 casks of this variety were catalogued, but not sold. Ordinary brown *Jamaica* sold at 15*s.* to 18*s.* 6*d.* per cwt.

INDIGO.—The first quarterly sales of the present year commenced on Tuesday, the total quantity catalogued amounting to 7,500 chests. A not inconsiderable portion of the supply was, however, withdrawn before the auctions began, so that only 6,414 chests were actually offered. This supply included 2,909 Bengal and Tirhoot, 105 Oude and Plant Oude, 2,463 Kurpah, 449 Madras, 176 Bimlipatam, 245 Bombay, 19 Bengal Figs, and 16 Manila. Bidding has not been very animated throughout the sales, but a very steady tone prevailed, and most varieties have maintained their value or show an advance. Of *Madras*, good dry leaf went 2*d.* dearer, but ordinary is slightly cheaper; *Kurpahs*, good color from 2*d.* to 3*d.* dearer; and *Bimlipatam*, about 1*d.* to 2*d.* dearer. A novel feature at the auction was the sale of 46 chests made by the new ammonia process, patented by the Indigo Co. Limited. The trade seemed to appreciate the new manufacture, and the indigo realised prices in excess of the valuation.

IPECACUANHA is undoubtedly in a very firm position. 22 packages were placed in sale (mostly second hand), but only five serons, just arrived, fair commercial quality, sold at

7*s.* 1*d.* per lb., and one seron fair annulated root at 7*s.* 4*d.* per lb.

LEAD (ACETATE).—*White* is quoted at 28*l.* for British, and 23*l.* 10*s.* for foreign; while *Grey* may be had at 23*l.*, and *Brown* at 19*l.*

LINSEED is now plentiful, its price being rather lower compared with the last fortnight. Finest *Dutch* is quoted 47*s.* 6*d.* to 48*s.*; *Bessarabian*, 46*s.* 6*d.*; *Canadian*, 46*s.* to 47*s.*; *Sicilian*, 49*s.* per 424 lbs. ex warehouse. *Calcutta* seed has been sold at 37*s.* to 38*s.*; *Bombay* at 38*s.* to 39*s.* per 416 lbs.

MUSK.—There was a rather large supply of Tonquin musk, part of which was sold at very firm rates. For one caddy very fine bold *Tonquin* pods 99s. was refused, the parcel being bought in at 110*s.* per oz. Six caddies fine first pile, blue skin and underskin, well trimmed, sold at 89*s.* 6*d.* to 90*s.* per oz., and first pile, rather stout skinned, 75*s.* per oz.; good bold but damp third pile, much adulterated, sold at 44*s.* to 45*s.*, and ordinary ditto at 25*s.* to 27*s.* 6*d.* per oz.; small to good bold Russian *Cabardine* fetched 14*s.* to 15*s.* 6*d.* per oz.

MUSTARD SEED remains firm at 9*s.* to 11*s.* per bushel for *English white*, and 8*s.* to 9*s.* per bushel for *foreign*. *English brown*, 12*s.* to 13*s.* per bushel. *Bombay*, 5*s.* 6*d.*

NUX VOMICA sells fairly well at 9*s.* 9*d.* to 11*s.* 6*d.* per cwt. for mouldy to good pale *Bombay*.

OIL (CASTOR) very firm. Good *Italian* oil is held at 4*d.* to 4*1/4d.* per lb.

OIL (COCOANUT).—There has been no improvement in our market, and on the spot *Cochin* in pipes remains quoted at 32*l.* to 34*l.*; finest white, 35*l.* 10*s.*; *Ceylon* at 25*l.* to 25*l.* 10*s.*; and *Mauritius* at 26*l.* 10*s.* The London statistical position is as follows:—

	1887	1886	1885
	Tons	Tons	Tons
Landed, Jan. 1 to Mar. 31	1,093	1,248	1,676
Delivered	" " 668	1,046	1,507
Stock, April 1 ..	.. 1,559	1,722	2,836

The Colombo market, according to the latest mail advices, showed no improvement. The exports of oil from Colombo from October 1 to March 24 amounted in 1886-7 to 135,112 cwts., in 1885-6 to 122,627 cwts., in 1884-5 to 157,520 cwts., and in 1883-4 to 193,422 cwts.

OIL (COD-LIVER).—The position of this article is again somewhat weaker, the trade here still declining to buy except from hand to mouth. The holders, on the other hand, quote much higher prices than they would perhaps be willing to accept if there were a good prospect of business. Considerable quantities of oil have arrived lately.

OILS (ESSENTIAL).—*Star Anise.*—The *O. P. & D. Reporter* states that, although in America there is no actual corner in the commodity, the stock is pretty well concentrated, the bulk of it being in the hands of one importer. There is nothing more to come forward after the invoices on the way arrive, as the stock in China is exhausted. According to our latest reports from China, there are still some 40 piculs oil of star anise left at Hong Kong, but they are in firm hands and held at high rates. Elsewhere in China native speculators have cleared all the markets, and will not sell anything except at a considerable advance. Our market has made a further advance and now quotes at 7*s.* 2*d.* per lb. We have not heard of business at that price, but 7*s.* has been paid. *Bergamot* is rather steadier, with a fair consumptive demand. Eleven cases *Oil of camphor* were bought in at 3*d.* per lb. *Cassia oil* is rather firmer, but the 10 cases unworked oil placed on sale to-day found no buyer, and were taken out at 2*s.* 10*d.* per lb. Speculators in China are attempting to corner the markets, apparently with some success. In America, according to the *O. P. D. Reporter* the position of the market was exceedingly strong, and the bulk of the stock there is controlled by one dealer. Since the last fortnight the sales in New York have amounted to about 900 cases, prices advancing from 57*1/2* cents to 70 cents. The statistics of exports from the primary market show that the shipments to the United Kingdom and the Continent this season have fallen several hundred cases short of the quantity shipped to those markets during the corresponding period the previous year, while the shipments to the United States are at least 70 cases short. This shrinking is due to

reduced production, the prices obtainable during the past year or more having been so low as to discourage the distillers. The shipments of *Citronella oil* from Ceylon continue to grow beyond precedent. Native brands are still quoted at $\frac{1}{16}d.$ to $\frac{3}{16}d.$ per oz., and Fisher's at $1\frac{1}{2}d.$ per oz. There is a good supply of *Cinnamon oil*, which may be had at 1s. 5d. to 1s. 6d. in fine quality. In *French Lavender* there has been rather less business doing, but prices are maintained at the late advance. *English lavender* is quiet at about 37s. 6d. per lb. *Oil of lemon* is somewhat steadier, and *Neroli* is very firmly held by the French owners, who refuse to sell. Finest quality is quoted here at 15s. per oz. *Nutmeg oil*, quiet, at 5d. for good white. *Oil of peppermint* is quiet; some old American, H.G.H. brand, was sold at 15s. 6d. in sale to-day; fresh oil of that brand is 3d. to 6d. dearer. Japanese peppermint is very plentiful. Messrs. Cocking & Co., of Yokohama, have reduced their quotation by 1s., and now ask 7s. 6d. per lb., but second-hand holders of other brands offer a good deal cheaper. *Menthyl crystals* neglected, and reduced to 5s. 3d. to 8s. for Cocking's brand, according to quality. Ten cases *Oil of pimento* of recent import were bought in at 3s. 6d. per lb. *Otto of rose* steady at unchanged rates. There is still a good supply of this otto in Bulgaria, but the holders there refuse to sell to shippers, preferring to wait until the prospect of the next crop becomes clearer. Five cases *Oil of sassafras* were bought in at 1s. 10d. per lb. *Ylang-ylang* neglected. The production of this oil in the Philippine Islands is increasing very rapidly. In 1883 the exports from Manila amounted to 417 kilos, in 1884 to 764 kilos, and in 1885 to 1,613 kilos.

OIL (OLIVE).—The Italian markets are weaker, and both at Naples and Messina holders have been compelled to accept a reduction. In Spain the prices paid for local consumption are higher than those ruling in England, and exports to the latter country are impracticable. From Mogadore we still continue to receive supplies, and that variety is now obtainable at 30s. 10s. to 31s. ex quay London. The prospects of the market generally remain unchanged, while the low price of competing articles and the abundant supply of Levant oils make a continuance of the present range of values possible. The following is the present statistical position of the article:—

	1887	1886	1885
Stock of oil in London on March 31 .. pkgs.	1,037	1,501	433
" Liverpool .. tuns	580	355	393
Imports into United Kingdom during first three months "	7,474	6,117	8,014
Exports from United Kingdom during first three months "	417	678	823

From Naples we hear that during the past fortnight abundant rains have fallen at the growing districts, which have greatly benefited the olive trees. The buds are now becoming visible in some localities, and from the first indications an abundant blossoming may be anticipated at Gioja, and a fair one at the other districts, which gave about one-third of a full crop last year.

OIL (PETROLEUM).—*American* remains steady, spot price being even a shade better, viz. $5\frac{1}{4}d.$ to $5\frac{5}{8}d.$ according to brand; April is quoted at $5\frac{1}{16}d.$; September–December, $5\frac{1}{2}d.$ to $5\frac{5}{8}d.$; *Russian* spot, 5d.; September–December, $5\frac{1}{2}d.$ The latest country in which petroleum has been discovered is said to be Alaska, the north-western portion of North America, but no wells have yet been drilled.

OIL OF TURPENTINE has made another advance, and closes very firm. *American* on the spot at 29s.; May, 29s. 3d.; June, 28s. 6d.; September–December, 26s. 6d.

ORANGE-PEEL is in good demand at 1s. 3d. per lb. for small and pale *Maltese*.

PEPPER.—All varieties are quiet, and the fairly large supply offered in auction yesterday was bought in. In the northern part of Sumatra pepper cultivation is rapidly extending, although the yield has not yet again attained the height at which it stood before the commencement of the warlike operations in Atcheen, about thirteen years ago. The total Atcheen crop is about 150,000 piculs, nearly the whole of which is brought into commerce *via* Penang. In the Lampung districts of Sumatra about 20,000 piculs are gathered annually. The Dutch Indian Government are encouraging the cultivation of pepper throughout the

colonies. In the island of Borneo also pepper-gardens have been established in various districts, and the first crops were shipped to Java and Singapore at the end of the 1885 season.

POTASH.—*Bichromate* remains quite at $3\frac{1}{2}d.$ per lb., while *chlorate* maintains its value of $6\frac{1}{2}d.$ on the spot, and is in more demand. *Yellow Prussiate* has advanced to $7\frac{1}{2}d.$

QUICKSILVER.—Prices show no change, the importer still quoting 7s. per bottle, second-hand holders a fraction less. The following is the statistical position of the article in London:—

	1886	1887
Imports, first quarter .. bottles, about	24,163	23,225
Exports	18,945	14,020
Imports for March	7,179	4,180
Exports	10,247	4,814
Stock on March 31, roughly calculated	70,000	56,500

QUININE.—The long-expected reduction in the official quotation of English brands occurred at the end of last week, when Messrs. Howards & Sons gave notice that they had fixed the price of their quinine sulphate in bottles at 2s. 6d. per oz., and of bulk at 2s. 4d. per oz. Whiffen's brand has been reduced to 2s. 2d. for bleached, and 2s. for unbleached in bulk. German quinine in bulk is quoted at 1s. 10d. per oz. There is very little business doing.

RAPESEED is very steady, while fresh supplies are wanting. English seed sells up to 49s., foreign to 47s. per 424 lbs. ex warehouse.

RESIN.—Quotations show no alteration, and remain for strained on the spot 3s. 9d. to 4s. per cwt., to arrive 3s. 7 $\frac{1}{2}$ d. per cwt. ex ship. Offers from United States of this quality are far from plentiful, and in face of the late advances both in Wilmington, Savannah, and Charlestown for same, higher prices may ere long have to be paid. There is some inquiry for near-at-hand strained, which is, however, unobtainable. If there is any truth in American advices, strained resin is very scarce at all the shipping ports on that side. Paper makers' qualities are steady without alteration in values, low grades 4s. 3d. to 4s. 9d. per cwt., better to fine sorts 5s. to 9s. All these qualities are in store here, and the late arrivals are not likely to be forced for sale. In soap makers' medium and fine grades few orders are obtainable on the spot; prices are now unprecedentedly low. Consumers are cautious in their operations, it having been generally reported that these grades may be plentiful this season, and present quotations confirm that view. In water-white business has been done for forward shipment new crop at extremely low figures. During the past month the deliveries of American resins were 2,000 barrels in excess of the landings, and on March 31 the stock showed about 9,000 barrels only. It has not been so small for a very long time.

SANDAL WOOD offers in large quantities at from 20l. to 60l. per ton.

SARSAPARILLA is very quiet. A good supply of *Honduras* and *Guayaquil* root was offered for sale, but found no buyers. The former was bought in at 1s. 3d. to 1s. 6d. per lb.

SENNA.—The large supply consisted principally of medium greenish to inferior *Tinnevelly* leaves, which sold at $5\frac{1}{4}d.$ to $5\frac{5}{8}d.$ for fair to good fair; and $2\frac{1}{2}d.$ to 4d. for common to ordinary dull. Several bales entirely black leaves fetched $\frac{1}{2}d.$ to 1d. per lb. The article must be pronounced slightly easier. Of *Alexandrian* senna nothing was sold. Sound whole green leaf was bought in at 1s. 8d., broken greenish at 9d., and good siftings at $8\frac{1}{2}d.$ per lb. Cairo advices dated April 11 state that the stock on that market is entirely exhausted, while exceedingly high prices are maintained in the producing country, and but very small arrivals are expected for this year.

SIMARUBA BARK.—Two bales of fair quality, imported *via* Hamburg, sold at $7\frac{1}{2}d.$ per lb.

SOAP (CASTILE) is quoted dearer—say, at 3ls. for white, and 24s. for mottled.

SODA.—*Ash* is held at $1\frac{3}{16}d.$ to $1\frac{7}{8}d.$, while there is a good demand for *Bicarbonate*, at 7s. 5s. per ton; and *Caustic* remains quoted at 7s. 15s. for cream, and 8s. to 8s. 5s. for white. There is some scarcity on this market for *crystals*, which are in good demand, although still obtainable at 48s. 6d., and at 42s. on the Tyne.

SODA (NITRATE).—The demand for this article continues to be very brisk, in consequence of the favourable statistical position and the brisk continental demand. 10s. 6d. to 10s. 9d. per cwt. is the present quotation for due cargoes, and 12s. is asked on the spot. There can be little doubt about the urgent requirements of the market at all ports. Stocks are everywhere reduced to the lowest ebb, and prices for parcels on the spot have again advanced. The combination of nitrate producers on the South American West Coast has broken up, and a certain element of strength has consequently been removed from the market, in so far as the future is concerned. At the same time, a subject of constantly recurring and disquieting rumours has disappeared, and in the place of an artificial adaptation of supply to demand the market will be left to regulate itself. The smallness of recent arrivals appears due less to scarcity of the article on the West Coast of South America as to a momentary scarcity of shipping room in that quarter.

SULPHUR.—There is more animation shown on the market, although no speculative purchases are recorded. In Sicily there seems to be a falling off in the supply for immediate disposal. *Rolls* are still held at 7s. 6d. to 8s., and *flowers* at 9s. 3d. to 10s. per cwt.

TONQUIN BEANS.—Fine frosted *Angostura* beans are very scarce, and held at high rates; but common foxy *Pará* and *Surinam* are in good supply, and sell at 1s. to 1s. 4d. per lb.

VANILLA.—Before proceeding to sell the supply catalogued, the broker who held the bulk of vanilla read a better from the principal exporter in Mauritius, in which it was stated that, whereas last year's crop had yielded 20,000 kilos. vanilla, the present one would not exceed 15,000 kilos. Of this quantity 13,459 kilos. had already been shipped, leaving a residue of only about 1,500 kilos. in the island. These figures, in conjunction with the fact that the whole of the Mexican crop will this year find its way to the United States, point to an early advance in the price of the article. The letter went on to state that the special brand of the exporter had not met with the same favour in England this year as previously. This was owing to carelessness on the part of the employé entrusted with the management of the shipments in Mauritius; but that functionary having now been replaced, the brand would again be packed with customary care, and future shipments would leave nothing to be desired. If the object with which the letter was read was to exercise an immediate influence on the market, it failed to attain its end, for vanilla sold at unchanged rates. Altogether about 2,950 lbs. were offered, and the following prices paid:—8½ in. to 9 in., 27s.; 8 in., 25s.; 7½ in. to 8 in., 23s. to 24s. 6d.; 7½ in. to 9 in., 24s.; 7 in. to 7½ in., 22s. to 23s.; 7 in., 20s. to 21s.; 6½ in. to 7 in., 14s. to 19s.; 6 in. to 6½ in., 18s.; 5 in. to 5½ in., 18s.; 5½ in. to 6½ in., 17s. 6d.; 4 in. to 5 in., 17s.; and 5 in. to 6½ in., 12s.

THE AMERICAN MARKET.

NEW YORK, April 8.

ALTHOUGH this is Good Friday, it is not kept as a holiday on our market. Since last writing, few alterations of any importance took place. There exists a very active inquiry for consumption in the home trade, and a good demand for export.

The prices sterling (in parentheses) are what the different articles would cost delivered in London, all market allowances, discounts, &c., being taken into account. Importers can therefore see at a glance the course of this market compared with their own.

BALSAMS.—The large demand for *Copaiba* has caused a further rise in *Pará*, which is now quoted 42c. (1s. 10½d.). *Maranham* has also advanced to 40c. (1s. 9½d.), and unless large arrivals take place soon, still higher rates will prevail. *Tolu* has improved, and now holders demand 32c. (1s. 5½d.). The high price of gum chicle has caused this advance. *Canada* is much dearer, 40c. (1s. 9½d.) being generally demanded. Buyers had better suspend purchasing till the arrival of the new balsam in June.

BUCHU has come down rapidly, ordinary yellow leaves

being on offer at 16c. (9d.); while fair green leaves, that were quoted 35c. a month ago, can now be had at 19c. (10½d.).

CASCARA SAGRADA.—There appears to be some uncertainty as to what freight will have to be paid from the Pacific slope in future. Till this is settled the quotation for this bark will be nominal, but most certainly not as low as that prevailing last year. Some holders asked 6c. (36s.), others as high as 8½c. (46s.).

GUARANA.—A further arrival of 12 cases took place. £1 (4s. 6d.) would probably lead to business.

GUM CHICLE has advanced on the face of heavy stocks and large arrivals; 36c. (1s. 7½d.) is now the market quotation.

IPECACUANHA.—As stated in last report, higher prices were expected; to-day the bulk of the stock was concentrated in one hand, and the market may be quoted at £1.55c. (6s. 9d.) for ordinary root. The position appears to be very strong.

OIL OF PEPPERMINT.—No movement has taken place, and very little business has been done. The stock, however, is so small that holders do not appear anxious to push sales, and are content to wait till the demand revives.

QUININE is by no means as dead as it is represented to be in some quarters, for, although the market presents a very tame appearance after the excitement of January and February there is a fair demand, and the domestic manufacturers report a steady business. Best brands of German are mostly picked up as they are offered at 45c. (1s. 11d., 5 per cent.) for bulk.

MESSRS. GEHE & CO.'S REPORT.

(Continued from page 484.)

ACID (ACETIC).—The price of this acid, of which some varieties are used in the preparation of high-class table-vinegar, has not changed since our last report. On the other hand, the quotations for glacial acid have risen, owing to the increased cost of production of these varieties, which have been brought to a higher degree of excellence as regards quality.

ACID (BENZOIC).—Prices have throughout had a falling tendency. The excessively low price of toluol benzoic acid apparently favours the employment of that variety for industrial purposes. The exports from Germany considerably increased last year, rising from 112,000 kilos. to 12,400 kilos. Of this quantity Switzerland received 2,500; France, 2,300; the United States, 1,500; and Austria, 1,400; while 1,500 kilos. were sent to Hamburg for re-exportation. Only 1,800 kilos. of benzoic acid were imported from abroad (Great Britain), and this consisted principally of acid *ex resinâ*.

ACID (OXALIC).—A not inconsiderable rise has occurred in oxalic acid and oxalate of potassium, consequent upon an arrangement between the German and British manufacturers. The German makers have advanced the price of the former from 60 to 88 marks, and of the latter from 90 to 100 marks per 100 kilos. The English prices have been fixed at the parity of the German rates plus 8 marks per 100 kilos. for customs-duty. The first object of the convention has been to keep up the German market price by excluding British competition, while, as regards foreign markets, either no stipulations have been made, or they have been so arranged that both countries can compete there on equal terms. Apart from the fact that such arrangements upset the protectionist theory, that customs duties are borne by the foreign producer of the imported article, they expose the merchants and consumers to the danger of a sudden fall in price, experience having taught that such changes generally occur sooner or later if the united producers simply aim at obtaining the highest possible prices, instead of regulating their production in accordance with the requirements.

(To be continued.)



Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish.

Write on one side of the paper only; write early; and devote a separate sheet of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Letters, queries, &c., not noticed in this issue will, if possible, be attended to next week.

Before writing for formulae consult the last volume, if you have it.

A Chemical Entertainment.

SIR,—I am pleased to give you an additional proof of the usefulness of your periodical, not only in a business point of view, or as stimulating a healthy interest in science, and in the literature and antiquities of our profession, but also as enabling chemists to make themselves useful in many ways. You have lately published suggestions for cheap chemical experiments, the materials for which chemists may put up for sale. I was asked to entertain a number of school children with chemical amusements, and chose out of your list such as were most suitable for public exhibition. Others were suggested by what I read. It may save some of your readers time and trouble, when looking up similar work, if I give a list of what were found feasible and successful in my own case:—

The Magician's Kettle, which supplied twelve liquors of different colour. Of course, the colouring agents were in the glasses—aqua pura in the kettle.

Witch's Cauldron.—S. V. Meth. with boric acid; stront. nit., &c., in suitable vessels.

Blazing Ice.—Potassium and ice.

Lighting a Candle with Ice.—Put a piece of potassium in the wick.

Fire under Water.—Phosphorus, pot. chlor., and acid sulph.

Dancing Fire-ball.—Charcoal ball on pot. chlor. fused in test-tube.

Lightning.—Lycopodium blown into a flame by insect-powder bellows.

Ice Creams.—Silicate of soda and chloride of calcium.

Sunlight.—Magnesium ribbon burning in oxygen.

Moonlight.—Phosphorus in oxygen.

Will-o'-the-Wisp.—Phosphorised ether in hot water.

Turning Steel into Copper.—Dipping boy's knife into sol. cup. sulph.

Volcanoes.—Pot. chlor. and sugar, inflamed with ac. sulph.

In addition to these experiments, a gas-factory was in work; by making hydrogen, passing it through benzine, and igniting. A lead tree was "planted," and grew. But the most captivating of all was the *Magic Likeness Taker*. Comic figures were drawn on white paper with gallic acid and mucilage. The sheets, apparently clean and untouched were hung up, and the pictures developed by spraying on them a solution of iron sulphate.

All these may be carried out by any chemist at very little expense. I shall be glad to hear from your readers of other experiments suitable to a similar occasion.

Yours truly,

HEDER. (81/43.)

Citrate of Bismuth.

SIR,—I made to-day some bismuth cit. according to the British Pharmacopoeia. I found on adding the citrate of

soda a thick white precipitate of bismuth citrate even to the last drop. I filtered, and to the solution added some more citrate of soda, and still a precipitate was formed. Will you please tell me if this latter precipitate is bismuth citrate, or whether I have made a mistake?

Yours truly,

MONTSERRAT. (31/85.)

[We presume that "Montserrat" means the solution of citric acid and bicarbonate of soda when he speaks of citrate of soda. This solution contains a large excess of bicarbonate of soda as well as citrate of soda, the excess being necessary in order to saturate the large excess of nitric acid which is present in the solution of bismuth nitrate. The whole of the bismuth is not precipitated as citrate in the cold, and for this reason the Pharmacopoeia directs the mixed solutions to be boiled. The second precipitate which "Montserrat" obtained was the same as the first—citrate of bismuth. In practice the Pharmacopoeia formula requires modification. One-half of the nitric acid is sufficient. The citric acid should be neutralised with bicarbonate of soda or liquor soda, dilute with a gallon of boiling water, and into this pour the bismuth solution, constantly stirring. Allow to stand until cold, then collect the precipitate, well wash and dry.—ED.]

Pharmaceutical Education in the Colonies.

THE following letter appears in *The Chemist and Druggist of Australasia* (March, 1887):—

SIR,—The scheme of pharmaceutical education proposed by Mr. Barclay, and published in full in No. 345 of your London journal, incites me to put on paper a few thoughts on this subject which have been simmering for some time.

Mr. Barclay's scheme, I will remind your readers, provides for annual examinations in pharmaceutical subjects conducted in provincial centres, by papers sent by the central authority; for a course of study spread over three years' apprenticeship, to be under the care of local teachers, if these are qualified chemists, and under the supervision of five chemists in the locality; the Pharmaceutical Society should pay a capitation grant on all students passing the annual examinations. I trust all your readers will study Mr. Barclay's scheme very carefully.

I notice that your London journal in its editorial comments says that compulsion and subsidy are the essential features of the scheme. With this I do not entirely agree. Subsidy may be necessary to make it a success; but I think compulsion is not indispensable. I believe that if such a scheme were adopted, the wish of parents and guardians to save future expenses would provide nearly all the motive power required.

Its Advantages.—The great advantage of this scheme is that it maintains studious habits from the time of leaving school onward throughout apprenticeships. The gap of three years in Britain, and of four years, as settled by the Inter-colonial Conference, between apprenticeship and examination is fatal to habits of study in most cases; is full of temptation in all. Where studies have no immediate aim, where the examination is so far in the future, embryo pharmacists are virtually invited to put off all attempts to learn the theoretical side of their business.

Adaptability to the Colonies.—Some colonial difficulties seem to be met by this plan. One energetic qualified man in any town, if he can get a small number of his brethren to act as a committee, can become a teacher without the need of any more elaborate organisation. The expense of enough simple apparatus to teach chemistry is not large, and nothing is more certain than that good teaching does not depend on elaborate apparatus. Centres not large enough to support a college may easily give employment to a teacher, and chemists qualified to give the instruction must be plentiful enough.

Difficulties in the way.—The chief obstacle to the adoption of this plan is that to some extent it lessens the importance of the central school. No one who looks through the Pharmacy Act Amendment Act, Victoria, can fail to notice how much the existence of the College of Pharmacy has modified the views of the promoters of that Act. Had the college not been in existence, or not been under the direction of the Victorian Pharmaceutical Society, they would never have inserted the clause compelling the master to give his

apprentice "reasonable time" to attend the lectures of the curriculum during the fourth year of his apprenticeship; indeed if we called that Act an "Act to make the College of Pharmacy pay," we should not be far out. How then can we expect the Victorian big guns to support or permit any course of action that would give students a chance of passing the examinations without paying college—as well as examination—fees, even if such a course was palpably a step towards improved pharmaceutical education? The same obstacle will be found to a less extent in New South Wales; but in Queensland and New Zealand the scheme seems likely to afford the best solution of geographical difficulties.

Country Chemists.—Even if the scheme should be adopted, country chemists will still be in a position of hardship in towns where there are too few apprentices to make classes feasible. How their interests have been disregarded by the Victorian Act must be evident to all. Fancy a master residing fifty or a hundred miles from Melbourne being compelled to give his apprentice "reasonable time" to attend lectures. It means nothing less than four months' holiday as far as he is concerned; while on the part of the apprentice and his guardians it means the cost of board and lodging in Melbourne for the same period, as well as lecture fees and examination fees.

It will be this difficulty of the country chemists which will prevent the adoption of the scheme as compulsory.

As a voluntary system there is little doubt that it would meet with great support. I am, sir, yours, &c.,

PEDAGOGUE.

Medicinal Herbs.

SIR,—With regard to one of the most variable and unsatisfactory of herbs, aconite, the experiment of growing a stock from wild plants is certainly worth a trial. Some years ago, when on a visit in Somersetshire, I met with a large quantity of the plant growing on the banks of a brook which runs near Milverton and Wiveliscombe. I believe this is one of the habitats mentioned by "Anne Pratt."

There is a genial chemist at Wiveliscombe, whose name I cannot now recall, who would, no doubt, be willing to afford all the information and help in his power to anyone who would undertake the cultivation of the plant from new stock. A series of careful experiments, made from season to season, might settle the question of English *versus* German aconite.

Yours truly,
HEDER. (87/23.)

How History is Written.

SIR,—Will you kindly compare our notice of removal with your reporter's gloss on it. We are not desirous of reducing chemists' profits to an absolute zero.

Yours faithfully,
J. CHURCHILL & SON.

Printed Notice.

Churchill & Son have removed, &c. Patent medicines supplied at wholesale prices. High-class dispensing at moderate rates.

Your Reporter (THE CHEMIST AND DRUGGIST, p. 462).

Mr. Walter Churchill has removed, &c. Informs the public that patent medicines are now retailed at wholesale prices, and prescriptions are dispensed at greatly reduced charges.

Inland Revenue Persecution.

SIR,—Mr. Read deserves some thanks from chemists for his letter in your last number. It may rouse them up a little. Editors are proverbially far-seeing, and all-knowing: so, perhaps, sir, you may be able to account for the existence of this spell, this mysterious something, in the drug trade which would lead an outsider to conclude that the majority of the members had been nourished from their youth upward, and still derived the most valuable part of their "virtuals and drink" from the products of the "unripe capsule of the *Papaver somniferum*." Wilkie Collins says in one of his novels that "a chemist is a gentleman: he being at one end of the scale, and the physician at the other, in an

honourable and learned profession"; but, looking at the way in which doctors in the guise of "____ & Co.," or "Medical Hall," snap up businesses in populous neighbourhoods on the right and on the left, methinks he is much nearer than "the other end of the scale," where I wish he would keep himself, and give the chemist more room in his "learned profession."

How long will the poor chemist allow himself to be the donkey-mount of the physician, who reins him in from the fair and delectable land of dispensing, while he is attacked in the front by the ravening wolf of co-operative stores, and pecked at in the rear by the petty persecutions of quack-medicine vendors? And now the Pharmaceutical Society looks blandly and approvingly on while the vulture Inland Revenue seeks to draw fresh blood from the already exhausted and well-drained creature. Poor chemist!

This impertinent prosecution by Inland Revenue officers is, or ought to be, the last straw. If they are carrying out the law, the law ought to be changed. And it would be changed very shortly if the chemists would only individually exert themselves in their own interests. The chemist asks, "What can I do? The other chemists won't combine, and as a class we are the reverse of wealthy." I reply, Remember you are a member of a learned profession. Your till is half empty, you say; learning will not fill your till, but learning gives you privileges far more powerful than those of any mere wealthy trade society banded together for their own interests. It makes you the friend and equal of your Member for Parliament. It entitles you to hob-nob with him. It entitles you to his deferential respect and consideration. In the provinces especially chemists are personal acquaintances of the local M.P.'s. Now if each chemist were to call on and talk to or write to his own representative, each one would exercise an influence vastly more powerful than that of a dozen petitions presented to Parliament. Let each chemist do this. Let him persistently harp upon his grievances, and depend upon it, though redress may be delayed, it will come. The chemists are a "learned profession," indeed. If "much learning" have not "made them mad," it has at least made the majority of them very sleepy. The local secretaries ought to awake themselves and awaken others. Hoping that Mr. Read's letter will awaken a few,

I remain, yours truly,
W. L. LONGSTAFF, A.P.S.
7 Westbury Road, Paddington, W.

[Mr. Longstaff omits to formulate the grievances which chemists are to submit to their M.P.'s. It is important that something definite should be asked for. Should it be the repeal of the Medicine Stamp Act, the abolition of co-operative stores, or what? M.P.'s will want some little guidance in the suggested remedial legislation.—ED. C. & D.]

Golden Ointment.

SIR,—Could you tell me what is generally sold for golden ointment in England? A girl came into the shop a few days ago for a 6d. box of golden ointment. We always give B.P. ungt. hydrarg. oxid. rub. when they ask for golden ointment. The woman came back and complained that it had hurt her eyes very much, and in a day or two after we received a lawyer's letter asking us to remit 1l. 1s. as, we supplied the wrong article, whereby the woman was put to great discomfort, and had to consult a doctor and to follow out his instructions. Of course the ointment was rather strong, but we never give anything else. My master has sold it all the time he has been in business (nearly forty years) and never heard a complaint before. Your opinion in this week's journal will much oblige.

Yours truly,
H. M. R.

[It is not customary, we believe, to give full strength red precipitate ointment as golden ointment for the eyes. A much weaker preparation (about 2 grains of the levigated oxide to the drachm) is frequently given, both in England and Scotland. We shall be glad to have the opinions of chemists in different parts of the country, so as to determine what is the custom. Ung. hydrarg. oxid. rub. is, we may observe, much too strong a preparation for the eyes, and often causes great injury. This is partly due to the crystalline nature of the oxide, and for this reason the yellow, or amorphous, oxide is now used by ophthalmologists.]

Cucumber Lotion.

SIR.—A few weeks since one of your correspondents stated that he had at last succeeded in making a satisfactory preparation from the formula published in your columns.

Will he kindly publish the exact method of his procedure, as I have failed to produce a permanent emulsion?

Yours truly,

CUCUMBER LOTION. (6/87.)

DISPENSING NOTES.

[*The opinion of practical readers is invited on subjects discussed under this heading.*]

Vapor Benzoinæ (Th. H. P.) and London Chemists.

SIR.—Last week a customer brought the following prescription, written by a leading London physician, to our establishment to be made up:—

Vapor benzoin. 3ij.

(Thr. Hosp. Pharm.)

One teaspoonful in water at 140°, to be inhaled night and morning as directed.

Not having a Throat Hospital Pharmacopœia, and being unable to borrow one, we sent immediately to a London wholesale house, asking them to send 3 oz. on at once and the formula, which they did. The following day, to our surprise, our customer brought the medicine back, saying that we had made a great mistake, and that the preparation was not like that he had made up at a firm of leading chemists in London, and where the doctor had recommended him to go, at the same time showing us a bottle which evidently contained tinct. benzoin co., although labelled in accordance with the directions on the prescription. If this is the way London leading chemists dispense, especially when recommended by the doctor, no wonder we poor country ones are looked upon as ignorant beings, and only fit for storekeepers. We should like to know if this is the usual way of dispensing in London.

Yours truly,
QUERIST. (26/85.)

[London chemists must indeed be in a very depraved condition! It is very hard upon country chemists, such as "Querist," that they should interpret the intentions of the prescriber so literally as is shadowed forth in the foregoing letter. Perhaps some of the leading London chemists will have something to say for themselves, even although compound tincture of benzoin happens to be vapor benzoinæ (Th. Hosp. Ph.).]

Another One.

SIR.—The following prescription was dispensed by me clear; an eminent Bond Street firm dispensed it thick. I should like the opinion of your readers as to which is right.

Quinæ bisulph.	..	..	..	..	gtt. xv.
Tr. ferri chloridi	..	..	..	..	9j.
Tr. nucis vomic.	..	..	..	..	gtt. xv.
Vin. pepsin	..	..	..	..	3ij.
Syr. zingiberis	..	..	..	..	3iv.
Aq. chloroform. a <i>l</i>	..	..	..	..	3ij.
M. Ft. mist.					S. D.
					J. F. (63/86.)

A Copalba Mixture.

SIR.—I would be obliged for your opinion as to the best way for mixing the following prescription. It is a very simple one, I know:—

Bals. copaibæ	..	..	..	..	..	3j.
Pulv. cubebæ	..	..	..	..	..	3ss.
Liq. potasse	..	..	..	..	..	3iij.
Spt. ether. nit.	..	..	..	..	..	3ij.
Aqua ad	..	..	..	..	..	3vij.
Misce.						

[Mix the potash solution with an ounce of water, add the copaiba, and shake well, diluting with another ounce of water. Place the cubeb powder into a mortar, and make into a paste with the spirit and an ounce of water; to this add the copaiba mixture and water to 8 oz.]

Bismuth and Iron Mixture.

(April 16, page 487.)

SIR.—In reply to "Senior" mix the tinct. ferri chlor. with the acid phosph. in a glass measure, then add the two tinctures; afterwards gradually add the liq. bismuthi, constantly stirring with glass rod, lastly adding the potass. bromid.

Portmadoc, April 16.

T. JENKINS.

A Resinous Mixture.

SIR.—Would you or one of the many well-informed readers of your valuable journal tell me how to prepare the following prescription:—

Ext. cannabis indic.	..	..	..	..	3ss.
Sodii baboracis	..	..	..	..	9j.
Aqua ad	..	..	..	..	3vij.
Sol. ct cola.					

J. A. M. (8/88.)

Hydrargyri Oleas.

SIR.—Would you or some of your numerous correspondents kindly inform me if the B.P. oleate of mercury (allowing for the different percentage) should be dispensed for the following prescription; if not, where could I obtain the formula?

Solution of oleate of mercury in oleic acid 10 per cent. (Marshall's); after a month increase to 15 per cent.

The patient tells me that what he was shown by the physician was fluid.

Yours faithfully,
H. K. (9/88.)

[The official oleate should be dispensed in this case. It is made after the manner recommended by Dr. John Marshall, who first called attention to the use of the oleates in the cure of disease. We are not aware that anyone claims any right to it.]

LEGAL QUERIES.

27/86. *J. B.*—Your customer is liable to a penalty of 20*l.* under the Veterinary Surgeons' Act, 1881, if he has used the title of veterinary surgeon, or one similar thereto, or in any other way implied that he is "specially qualified" for veterinary practice. Veterinary practice itself by an unregistered person is not illegal, though the person practising, if unregistered, cannot recover fees, &c., in a court of law. The Act provided that a person who had been in continuous practice for at least five years immediately before the passing of the Act might, under certain circumstances, obtain registration; but application for such registration was to have been made to the Royal College of Veterinary Surgeons within a year of the passing of the Act. To obtain registration otherwise a three-years' curriculum and several examinations are required. Full particulars will be found in our last educational number (September 18, 1886).

61/87. *Juniper.*—On the two labels which the Board of Inland Revenue declare to be liable to medicine stamp-duty you claim a proprietary right in the preparation by putting your name before the title in the possessive case, and on one of them by the phrase "prepared only by," &c. The description of the quinine and iron tonic, "acknowledged by all to be the best strengthening medicine known," would probably render that preparation liable. Also note that by claiming proprietary rights in one preparation at the foot of another label or in any form you render that article liable.

32/87. *Syrupus* asks what per cent. of proof spirit is it legal to introduce into fruit syrups to preserve them, and sell them bottled by those who have no licence.

We do not know of any law which permits you to add spirit in any proportion to such beverages, and you ought to make fruit syrups to keep without the addition of alcohol. But we imagine the Board of Inland Revenue would allow your syrups to contain as much proof spirit (2 per cent.) as is allowed to be present in herb beers.]

T. S. R. (62/85) asks:—"Is it usual for apprentices in the drug trade to make up time lost by sickness?" [We should say, "No."]

3/87. X. Y. N.—We should certainly regard the preparation as liable to medicine-stamp duty, in which case it could, of course, be legally sold only by duly-licensed patent-medicine dealers.

64/87. *Inquirer*.—It is not competent for an unregistered person to sell "Rough on Rats," if, as we believe, that article contains arsenic.

61/87. *Juniper*.—It is probable that unregistered persons selling fly-papers containing a scheduled poison might be fined under the Pharmacy Act, but it is not quite certain either that such papers could be legally defined as "preparations of arsenic" (for instance), or that flies are legal vermin, one of which points would have to be proved.

Corn Solvent.—Mr. T. H. Powell, 116 Denmark Hill, S.E., referring to an answer given last week, says:—"Some time ago I forwarded the following label to Somerset House, and it was returned as liable to stamp duty:—

"CORN SOLVENT.

"Paint the corn every night for three or four nights; then, after using a warm foot-bath, remove the corn in scales. If necessary repeat the application."

(Plain name and address.)

"I therefore requested my printer to print me a new label which he could guarantee to be not liable; he then altered the title to 'Corn Application,' retaining the directions as above. This label I forwarded to the authorities, and it was returned, as in the first instance, liable to stamp duty."

[This is a puzzling, but an important point. In this journal (January 8, page 41) will be found a copy of a letter from the Board of Inland Revenue addressed to Messrs. Newbery & Sons, in which it is expressly stated that the Board do permit the use of the title "Corn Solvent" on unstamped preparations. It is evident, therefore, that the fault lies somewhere in the directions. Will Mr. Powell write to the Board referring them to their letters to himself and to Messrs. Newbery, and asking how the label renders the article liable? We shall be glad to know the result.]

West end (20/88) would be glad to know if a pamphlet (one enclosed) sent out by post describing certain goods, such as glycerine jujubes, solution of camphor, &c., and what these things are good for will render these articles liable to stamp duty; the articles themselves bearing plain labels and sold separately, care being taken not to give a pamphlet at the same time? [If by any form of written or printed advertisement you recommend a medicine (other than a simple drug), or claim a proprietary right in it, you thereby render that medicine liable to stamp duty, no matter how your label is worded.]

MISCELLANEOUS INQUIRIES.

21/82. *Curiosity*. Hooper's Female Pills.—The following is said to be the composition of these:—Barbadoes aloes, 3 oz.; sulphate of iron, 2½ oz.; myrrh, extract of black hellebore and Castile soap, of each, 2 oz.; canella and ginger, of each 1 oz. Mass with syrup or water, and divide into 2½ gr. pills.

52/82. *Cera Alba*.—White Bole is kaolin or China clay, a silicate of alumina; precipitated bole is arminian, or red bole, prepared by elutriation.

28/82. *Stanley*. Green Oils.—Oil of elder is sometimes given for this. It is made by digesting 1 lb. of green elder leaves in a quart of olive oil. Boil until the leaves are crisp, press out the oil, and again heat it till it turns green. We do not have a formula for the others.

J. Goshar asks what will Deodorise Benzine? The odour is partially removed by shaking with animal charcoal and filtering, but it is stated to be effectually deodorised by shaking up for several days with plumbate of soda, prepared by digesting litharge in strong solution of soda.

73/83. *Roedam*.—Nitrate of potash is saltpetre, and nitrate of soda "Chili saltpetre."

74/83. *Menthol*.—You will find an article on antifebrin (its chemistry and preparation) in our last volume, page 351. It is still being used.

67/83. *Furniture Cream*.—You must let us have the formula before we can answer your question.

43/86. *Stamping Corks*.—E. B. K. would be glad if "Heder" would give a representation of the stamp he recommends for the tops of corks used in dispensing in place of sealing-wax. And also if he would add a remark as to the ink he uses.

23/77. *Notts*.—The following formula for *Herb Bitters* may suit you for cheapness:—

Rad. glycyrrhiz.	..	..	..	..	..	3 <i>iv.</i>
Liq. sassafras	..	..	..	..	..	3 <i>ij.</i>
Rad. gentianæ	..	..	..	..	..	3 <i>j.</i>
Rad. taraxaci	..	..	..	..	..	3 <i>ij.</i>
Horehound	..	..	..	..	..	3 <i>j.</i>
Pol. buchu	..	..	..	..	..	3 <i>j.</i>
Eops	..	..	..	..	..	3 <i>j.</i>

All should be cut small. Mix, and make up into 3-oz. packets, each to contain in addition 5*j.* each of bicarbonate of potash and common salt. To retail at 6*d.*, as sufficient for a quart of "bitters."

16/80. *H. L. Spink* and *J. H. Danson*.—You have no doubt derived the information you desired regarding the cultivation of medicinal plants from the discussion which has taken place in recent issues.

Books.

38/85. *Nihil Desperandum*.—Bentley's "Botany" is a suitable work for you. It gives information regarding all plants of economic value. An excellent little book on the subject is the "Official Guide to the Museums of Economic Botany at Kew," No. 1, treating of Dicotyledons and Gymnosperms, may be got by post from the gatekeeper of the gardens for 6*d.* in stamps.

For dentistry and modes of extracting teeth, consult either of the following works:—Barrett's "Dental Surgery" (Lewis, 3*s.*); Gorham's "Manual of Tooth Extraction" (Kimpton, 1*s.*). The best work on the subject is Tomes's "Manual of Dental Surgery" (Churchill, 14*s.*).

38/85. *Cymra*.—We do not know the composition of Long's Maggot Lotion.

25/85. 5115*A.* wants to know the price-marks of the London Co-operative Stores. [The price-marks of the leading London drug houses and co-operative stores were given in the lists which we published a few weeks ago, but no names were given for an obvious reason.]

28/85. *Query*.—Try solution of chlorinated lime to remove the magenta stain from the horse's neck, and if that fails, fresh acid, nitro-hydrochlor. dil. may prove successful.

46/85. *James*.—We published a formula a few weeks ago.

39/86. *A. W. Bartlett*.—You will find information regarding concentrated waters in the current year's Diary.

29/85. *Pharmacien* (Boulogne-sur-Mer) asks how he can turn a quantity of rancid grease into **Soft Soap**.

[Take 2 lbs. of pure caustic potash and dissolve it in 30 oz. of boiling water. Melt 7½ lbs. of the grease, and pour the alkali solution slowly into it, stirring all the time with a flat wooden stirrer, and until the alkali and grease combine. Then set aside in a warm place for a day, and again stir, repeating this operation daily for a week, when the soap will be ready. Animal fat makes white soft soap, and oils give the transparent kinds.]

68/86. *J. N. I.*—**Florida Water**.—Oils of lavender and bergamott, of each 5*iv.*; oil of neroli, 5*ij.*; oil of orange, 5*iv.*; oil of cloves, 5*j.*; musk, gr. *iv.*; Cologne, spirits, and water, of each $\frac{1}{2}$ a gallon. Macerate for a week and filter through magnesia. The flaming part of fusee matches is composed of charcoal, chlorate of potash, red lead, mucilage, &c., with cascarilla as the fragrant ingredient.

40/85. *Rokuju Niban* asks:—“Can any of your readers recommend any improvement on the old-fashioned **Door-handle and Latch** for shop door, not expensive, and simple in action?”

[The Dutch lever lock is the best we know of. The handle is grasped by the hand instead of the thumb. It is in universal use in Holland, and is becoming much used in this country.]

85/66. *J. G. H.* writes:—“I shall be obliged for your advice and suggestions in the following case. A person visited a dentist for the purpose of having an upper set of **Artificial Teeth**, but instead of the decayed teeth being extracted, they were all nipped off and then filed, so that the artificial ones would fit. But now the patient is troubled with a very unpleasant taste in the mouth, especially so when the teeth are taken out for the purpose of washing them (cleaned daily). No doubt the taste, which puts the stomach out of order, arises from the natural teeth. Now is there any means which can be adopted in arresting this unpleasantness? The patient has tried a carbolic acid wash, but without effect. Your advice will be esteemed.”

[The roots should be perfectly freed from all decayed matter, the pulp thoroughly cleaned out, the roots then drilled and stopped. If this has not been done the unpleasant odour and taste will remain until the dentist completes his work. In any case, the patient should carefully clean the stumps (as well as the artificial teeth) after each meal. For the stumps a badger-hair tooth-brush and carbolised tooth-wash (such as we have given a formula for frequently) should be used. The OS Tooth Block is also an excellent preparation for cleaning the stumps.]

Furniture Cream.—*W. P.* (60/86) thus writes regarding a preparation made from the following formula:—

	Oz.				
Potas. carb.
Ol. terebinth.	15
Cera alb.	2
Cetacei	1
Aqua	10
Cerasin	2
Sapo castil.	½
Sec. art.					

“The last batch I made refuses to emulsify, and remains curdled. I have melted in water-bath, and stirred until cold, and tried sundry other means, but without satisfactory results. I think the fault lies with the cerasin, as I have never had any trouble before, and this lot is made with fresh stock of cerasin.”

[The cerasin is paraffin coloured to resemble yellow wax. The cream would be better without it. The plan to adopt is to dissolve the soap and carbonate of potash in the water; melt the wax and spermaceti, and add to soap solution. Lastly, add the turpentine, and agitate briskly until a milk-white fluid is obtained. Calcutta white wax should be used, not the ordinary English bleached.]

41/86. **Agriculture**.—**Browning for Gravies**.—Best white sugar, 8 oz.; butter, 2 oz. Boil together until brown.

Pig Powders.—Black antimony, 4 oz.; sulphur, 6 oz.; liquorice and fenugreek, of each 8 oz.; sulphate of iron, 2 oz. All in fine powder, and mixed. Dose: A tablespoonful daily.

Calf Meal.—Crushed linseed (fresh), 7 lbs.; barley-meal and wheat-meal, of each 14 lbs. Mix. This is made ready in a similar manner to starch.

1/87. *J. H. Skelton*.—The principal ingredients of the **Herb Bitters** which you now send are horehound and coltsfoot leaves and quillaia bark. It also contains spike lavender stalks and flowers.

4/86. *M. D. M.*—The makers of the soda-water apparatus which you use ought to give you the elementary information which you are in need of. You should get a copy of Goold's “Receipts and Instructions for the Preparation of Artificial Mineral Waters,” published by Barrett, Sons & Co., 21 Seething Lane, E.C. Please consult our advertisement pages regarding handbills, and write for specimens. We have given recipes for Hot Tom and other tinctures of that nature recently.

66/85.—**Mel Boracis**.—**Phosphorus Mixture**.—The following modification of Dr. Ashburton Thompson's formula for solution of phosphorus affords a palatable preparation which does not deposit, as his does, and it contains very little oxidised phosphorus:—

Phosphorus ..	..	..	..	..	4 grains
Price's glycerine ..	..	..	..	..	12 fl. oz.
Heat on a water-bath until the phosphorus is dissolved, then add					
Absolute alcohol ..	..	..	..	..	2½ fl. oz.
Rectified spirit ..	..	..	..	..	1 "
previously heated to boiling. When cold add					
Essence of peppermint (1 in 8) ..	..	..	..	..	3 <i>iij.</i>
Dose: A teaspoonful.					

34/87. *H₂O*.—We cannot advise anyone to go to Australia without first qualifying here. The English qualification is accepted in lieu of examination by the pharmacy boards in all the Australasian colonies, and though an unqualified person may obtain a situation, and perhaps a good one, he will find his path a much easier one if he go out with his certificate.

24/87. *C. J.*—We think you are doing very well with our **Ink Formulae**, and if you go on you will beat the record. One hint may help you, and it is that the popular ink which you name is stated to be coloured with Prussian blue, and does not contain much iron or gall decoction. You will get a splendid blue with indigo-carmine, provided you use as little acid as possible, or none, in the ink.

61/86. *Clements* (Brighton).—**Iodol** is not a substitution product of, but a substitute for, iodoform. It is pyroline tetraiodide (C_4H_4N), and is prepared by adding a strong solution of iodine in iodide of potassium to animal oil, the principal constituent of which is pyroline. It is a greyish or light brown powder, inodorous, insoluble in water, but freely soluble in alcohol. It is stated to possess antiseptic properties similar to iodoform. You will find particulars regarding its use in medicine in the last volume of THE CHEMIST AND DRUGGIST.

Anæmia (1/84).—The word “anæmia” is derived from the Greek *an* (privative), and *aîma* (blood), and means (according to Dr. Murray) “lack of blood; a condition of unhealthy paleness, a feebleness resulting either from diminution of the amount of blood in the body, or from a diminished proportion of red corpuscles in the blood.” It is not necessarily associated with lung disease.

DR. LINCK'S GENUINE MALT EXTRACT,

CONDENSED IN VACUO,

Prepared by M. KOCH & CO., Successors to Dr. Linck & Co., Stuttgart, Germany. (Established 1864.)
 This carefully-prepared Malt Extract is well known on the Continent, and recommended by the highest medical authorities in cases of Debility and
 Emaciation, in Diseases of Children with Consumptive Symptoms, Chronic Cough, &c.

Sole Consignees for the United Kingdom — H. POTHS & CO., 4 Creechurh Lane, Leadenhall Street (late Sugarloaf Court).
 Sold in Bottles—Retail Price, 2/- each; Wholesale, 19/- per dozen.

LEUBE-ROSENTHAL'S IMPROVED MEAT SOLUTION,

Prepared by R. STUETZ, Chemist, Successor to Dr. MIRUS, Jena, Germany.

This carefully-prepared Meat Solution contains the real, stimulating, and nourishing constituents of the best quality of beef, freed of fat and sinews. Owing to its high degree of digestibility, it is of the greatest value to persons suffering from stomach and nervous complaints, to delicate children, convalescents, etc. It is at the same time exceedingly appetising, and totally devoid of that objectionable nauseous taste so common in most of the Meat Preparations.

It is warmly and solely recommended by Professor Leube. See "Sammlung Clinischer Vorträge" of R. Volkmann, in Dr. Wiel's "Tisch für Magenkränke," and in Professor Reclam's "Gesundheit" ("Zeitschrift für Hygiene"), No. 14, viii., 1882, under the title "Newest Nourishments." Professor Reclam also has had great success with it in cases of debility of persons of all ages. This Preparation has been for some time, and is still, in use at the German Hospital, Dalston.

Sole Agents for England — H. POTHS & CO., 4 Creechurh Lane, Leadenhall Street (late Sugarloaf Court).
 Sold in $\frac{1}{2}$ -lb. Tins. Retail Price, 2/- each; Wholesale, 17/- per dozen.

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Labels indestructible and of elegant appearance, forming an even surface with the glass or porcelain. The Jars of best porcelain, thoroughly greaseproof. The Bottles hand-made and of superior quality. Both are unsurpassed by anything in the market in every respect. Also a CHEAPER sort of Bottles and Jars, with labels equally indestructible, but very plain, especially suitable for Dispensaries, &c. Intending Buyers are requested to inspect Samples at

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BY ROYAL



LETTERS PATENT.

THE "LILY" BABY COMFORTER.

IMPORTANT CAUTION TO CHEMISTS AND OTHERS!!

The PATENTEE claims to be the INVENTOR of a BABY COMFORTER, having a passage for the admission of air into the Teat, by which means

THE TEAT ALWAYS RETAINS ITS PROPER SHAPE.

Chemists are cautioned against offering for sale any others having a passage for the admission of air.

Vegetable Ivory, with or without Rattle, retail at 9d.; with soft rubber gum ring, retail at 6d.
 (These sell well; they are good value for money.)

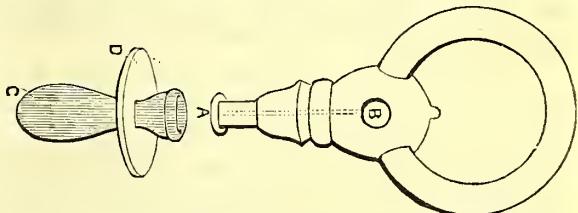
Vegetable Ivory, superior quality, for presentation, each in neat slide boxes, retail at 1/-, including Natural History Sheet for the Nursery, 36 in. by 23 in., 96 Illustrations.

Trade terms, 4/-, 6/-, and 8/- per doz. The 6d. and 9d. on handsome cards of 1 doz.

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Wholesale—Patent Medicine Warehouses or Druggists' Sundriesmen.



This engraving represents the mount and unperforated teat without the rattle. A. B. shows the passage, drilled for ingress and egress of air into and from the teat.

NOTICE.

NO
MEDICINE STAMP DUTY
ON
SAVARESSE'S CAPSULES.

Messrs. EVANS, LESCHER & WEBB have received the following letter from the Solicitor of Inland Revenue:—

"SOLICITOR'S DEPARTMENT,
" SOMERSET HOUSE, W.C.

"LONDON: April 1st, 1887.

"GENTLEMEN,—I have to inform you that the boxes of Savaresse's Capsules, which you have submitted to me, are not liable to Medicine Stamp Duty.

(Signed) "D. H. MELVILLE,
"Solicitor of Inland Revenue.

"To Messrs. Evans, Lescher & Webb."

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REVISED PRICE LIST.

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The following is a list of a few that they name *au hazard*, and that have a large sale:—

Retail	Per doz.	Retail	Per doz.	Retail	Per doz.	Retail	Per doz.
4/6.. Alcool de Menthe Ricquier	41/5	4/6.. Capsules Matico .....	.36/	2/3.. Gnyot's Goudron .....	.18/	7/0.. Rabuteau's Elixir Ferrug.	.65/
2/9.. Ditto ditto	.21/8	4/6.. " Raquin .....	.36/	11/.. Laville's Gent Tincture .....	.91/10	2/9.. Sirop .....	.24/4
2/9.. Aubergier's Syrup	.26 3	4/6.. " Matheu Caylus .....	.27/	11/.. Papier Fayard .....	.91/10	4/0.. Racahout .....	.51/
2/9.. " Pâté .....	.15 4	4/6.. Chassaigne's Wine .....	.38/6	2/3.. Papier Fayard .....	.12/6	4/6.. Reynal's Bougies .....	.37/10
6/6.. Bay Rum .....	.57/	2/9.. Pills .....	.24/4	1/1.. Ditto .....	.7/3	2/9.. Ricord's Injection .....	.24/4
5/5.. Ditto .....	.31/	4/6.. Olins' Bromide Cam. Dragees 45	4/	4/.. Papier Fruneau .....	.24/4	4/6.. " Capsules .....	.36/
2/.. Belloc's Charcoal .....	.15 4	5/.. Eau Botot (Genuine) .....	.40/1	2/3.. Ditto .....	.14/5	9/.. " Syrup .90/ ; 4/6 ; 4/	
1/9.. " Lozenges .....	.14 5	8/.. Ditto .....	.24/4	1/9.. Pâté Anbergier .....	.15/4	1/6.. Star Paper .....	.11/
4/3.. Blanchard's Pillis .....	.32 5	2/6.. Eptic's Cigarettes .....	.13 6	1/9.. " de Berthé .....	.15/4	2/9.. Vallet's Pills .....	.22/6
2/6.. Ditto .....	.18/	6/.. Elixir de Coca .....	.56/9	2/9.. " de Coca .....	.24/4	1/9.. Ditto .....	.14/5
6/.. Brou's Injection .....	.27/	2/9.. Flon's Syrup .....	.22 6	1/9.. " de George .....	.14/5	4/6.. Veloutine (White, Pink, Yel.)	.37/10
8/.. Bugeaud's Wine .....	.38/	2/.. Gayetty's Paper .....	.15 4	1/1.. " ditto .....	.9/	3/6.. Ditto .....	.27/
4/.. Bully's Vinegar .....	.32 5	2/3.. Granules Arsen. Acid .....	.13 6	1/6.. " de Nafé .....	.18/6	2/9.. Vichot's Trochisques .....	.21/8
2/.. Ditto .....	.16 3	2/9.. " Soda .....	.15/4	1/9.. " Regnault .....	.14 5	4/6.. Valentine's Meat Juice .....	.88/
4/6.. Candé's (Lait Antéphilic.)	.39 8	2/9.. " Soda .....	.15/4	7/.. Pierlot's Valerian .....	.59 5	4/6.. Vin de Coca Mariani .....	.39/8
4/6.. Capsules Bromide Camph. 45/		2/9.. Grimault's Syrup Lime23/5	2/9.. Rabuteau's Dragees Ferrug.	.24/4		

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MM. Roberts & Cie. ont l'honneur d'informer MM. les Pharmaciens Spécialistes de France et de l'Étranger qu'ils se mettent à leur disposition pour des dépôts qu'ils voudraient établir à Londres. On peut avoir tous renseignements en s'adressant à leur maison de Londres ou à Paris.

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" PYROGALLIC - - -	Bi-sublimed, white, bulky ... - -	Ditto ditto ditto.
" SALICYLIC (Kolbe's)	White, powder, crystallised, and dialysed	Dissolves colourless in water or alcohol; purest for medicine.
" TANNIC - - - - -	Lightest crystals ... - - - - -	Dissolves almost colourless in water, alcohol, and ether.
" " - - - - -	Powder and granulated ... - - - -	Dissolves freely in water, alcohol, and ether.
CELOOIDINE (Patent) - - -	Gelatine plates ... - - - - -	Purest Pyroxylin; inexplosive.
CHLORAL HYDRATE - - -	White cake and crystal ... - - -	See Liebreich's, below.
CHLORAL HYDRATE (Liebreich's)	Transparent rhomboidals (facsimile of Dr. Liebreich's)	Will not decompose by age.
CROTON CHLORAL - - -	Shiny crystalline scales. (Powder form most objectionable)	Free from foreign chlorides.
GLYCERINE - - - - -	S.G. 1260, double distilled, brilliantly white, odourless; also lower S.G. and qualities	Free from lime, chlorides, metals; will stand severest chemical tests.
IODINE - - - - -	Resublimed, fine scales ... - - - -	Purest.
IDOFORM , Absolut. - - -	Crystals and powder of soft touch ... - - - -	Purest; made by electrolysis.
PARALDEHYD - - - - -	... - - - - -	Absolutely purest.
POTASS. BROMIDE - - -	Fine white dry regular crystals ... - - - -	Perfectly free from iodide, and the most free from chloride.
" PERMANGANATE	Large and small crystals ... - - - -	Chemically pure.
, IODIDE - - - - -	Fine white dry regular crystals ... - - - -	Apply Barytic and other tests. This will never change colour.
SODA SALICYLATE , and other Salicylates	White powder and crystals ... - - - -	Freely soluble in water and alcohol.

H. FINZELBERG, of Andernach-on-Rhine.

ERGOTINE , pure Dialysed ...	Brown colloid, purified by Dialysis	Free from all saline matter present in the ordinary Ergotine and extracts.
FERRUM OXYD. (5% Dialysed)	Transparent brown liquid, purified by Dialysis	Free from all saline matter. Diluted by ten times its weight of water, will stand the test of Nitrate of Silver.
PEPSIN PORCI (100%) ... - -	White, sweet, odourless powder ...	Freely soluble in water, not hygroscopic, and will not deteriorate; will dissolve (by Wittstein's test) 100 parts of white of egg and 250 parts of fibrine.

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QUININE , Sulphate ... - - -	Whitest and most bulky crystals ...	Utmost purity warranted.
" Muriate ... - - - - -	" " " ...	" " "

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NAPHTHA, SULPHURIC ACID, AND CHARCOAL.

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TWEMLOW'S CHLORODYNE.
GORDON STREET, LOWER BROUGHTON, MANCHESTER.

Dr. J. COLLIS BROWNE'S CHLORODYNE.

THE ORIGINAL AND ONLY GENUINE.

IMPORTANT CAUTIONS

From Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD,
and the LORDS JUSTICES OF APPEAL.

VICE-CHANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that 'Dr. J. Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was as deliberately untrue as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital.'

The VICE-CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made sooner, the Court would have given Dr. Browne protection.'

LORD CHANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated 'that had application been made at a proper time and place, the Court would have found means to restrain the Defendant from misrepresenting the decision of the Vice-Chancellor.'

LORD JUSTICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepresentation of the decision of Vice-Chancellor Wood.'

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 14th, 1865, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she never used any other, that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant publishes the said testimonial as referring to his medicine.

The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published by the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the inventor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation; nevertheless he assumes the name, testimonials, &c., of Chlorodyne.

Technicalities in law prevent that protection which the public should justly have against such a course of conduct. It is now incumbent on all who purchase Chlorodyne to see that the name, 'Dr. J. Collis Browne's Chlorodyne,' is engraved on the Government Stamp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts at analysis have failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.



FURTHER IMPORTANT NOTICE.

The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement in Court, that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne, or the Original Chlorodyne, is ordered, they invariably supply Dr. J. Collis Browne's:—

Apothecaries' Hall,	London	Frazer & Green,	Glasgow	Morson, T., & Son,	London
Allen, Hanbury & Co.,	"	Gale & Co.,	London	Newbery & Sons,	London
Baiss Brothers,	"	Giles & Son,	Clifton	Oldham, G., & Co.,	Dublin
Banks & Richards,	Birmingham	Goulding, Messrs.	Cork	Parsons & Richardson	Leicester
Baron, Harvey & Co.,	London	Gratton & Co.,	Belfast	Peake, Allen & Co.,	Dublin
Bell, John, & Co.,	"	Grinwade, Ridley,	London	Raines & Co.,	York
Bourne & Taylor,	"	Grindley & Son,	Chester	Raines & Co.,	Edinburgh
Corbyn & Co.,	"	Hearon, Squire & Francis,	London	Sang & Barker,	"
Cox & Gould,	"	Hodgkinson, Tonge & Stead,	"	Sanger, J., & Sons,	London
Curling & Co.,	"	Hopkins & Williams,	"	Sim, James, & Co.,	Aberdeen
Curtis & Co.,	"	Hovenden, R., & Sons,	"	Smeton, W.,	Leeds
Davy, M'Murdo & Co..	"	Hunt & Co.,	Exeter	Southall & Co.,	Birmingham
Dobbin, W., & Co., Limited	Belfast	Hunt, A., & Co.,	"	Sutton, W., & Co.,	London
Drew, Barron & Co.,	London	Johnson, J. H. & S.,	Liverpool	Tomlinson, Hayward & Co.,	Lincoln
Drew, B., & Alexander,	"	Langton, W., & Co.,	London	Treacher, Hodgkinson & Co.,	"
Dunn & Company,	"	Lynch & Co.,	"	Westrup, J. B.,	Kensington
Edwards, W.,	"	Mander, Weaver,	Wolverhampton	Westwood & Hopkins,	Lincoln
Evans, Gadd & Co.,	Exeter	Marsden & Sons,	London	Woolley, James,	Manchester
Evans, Lescher & Webb,	London	Maw & Son,	"	Wyles & Brown,	Coventry
Ferris & Co.,	Bristol	Meggeson & Co.,	"	Yates & Co.,	London
Fouger, S., & Son,	London	Mackay, John, & Co.,	Edinburgh		

After these public statements in a Court of Equity, and subsequent confirmation by the trade at large, no Chemist can conscientiously use or sell any other compound for Chlorodyne without committing a breach of faith, unjust to patient and physician. The value of the remedy alone creates the great demand.

Sold in Bottles—1s. 1½d., 2s. 9d., 4s. 6d., and 11s. Usual Discount to the Profession.

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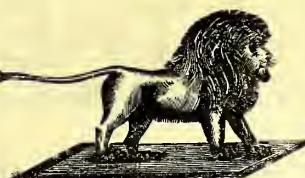
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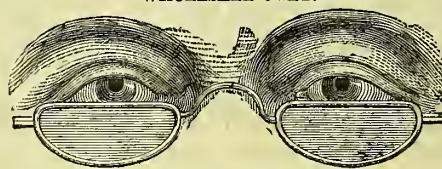
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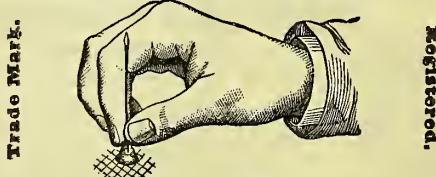
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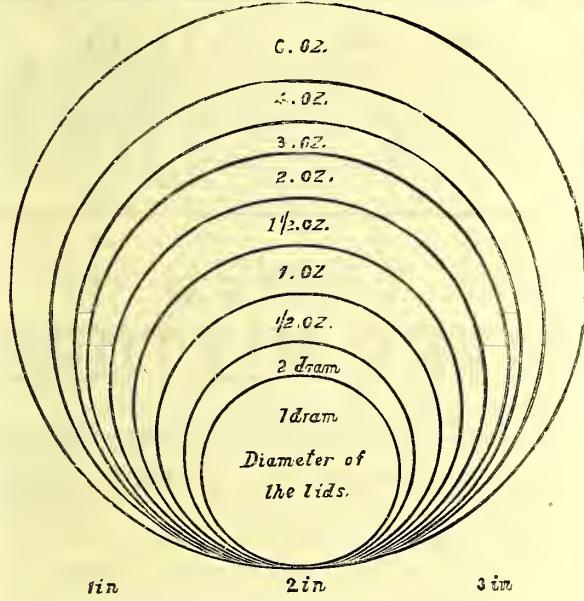
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2 gross	$\frac{1}{2}$ oz. Extra cut down English Willow Boxes, to hold	2	dr.	...	0 10	— 1 8
3	$\frac{1}{2}$ oz. cut down	"	"	3 dr.	0 11	— 2 9
6	" 1 oz. "	"	"	$\frac{1}{2}$ oz.	0 11	— 5 6
2	$1\frac{1}{2}$ oz. "	"	"	1 oz.	1 2	— 2 4
1	$\frac{1}{2}$ oz. deep	"	"	$\frac{1}{2}$ oz.	1 0	— 1 0
1	1 oz. "	"	"	1 oz.	1 2	— 1 2
1	$1\frac{1}{2}$ oz. "	"	"	$1\frac{1}{2}$ oz.	1 4	— 1 4
1	2 oz. "	"	"	2 oz.	1 6	— 1 6
$\frac{1}{2}$	3 oz. "	"	"	3 oz.	2 0	— 1 0
$\frac{1}{2}$	4 oz. "	"	"	4 oz.	2 6	— 1 3
		Packing Case	—	0 6
18 gross assorted	Nett cash £1 0 0	

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Write for Sample and Quotations, in Casks of 25 and 12½ Gallons, Drums and Winchester Quarts.

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Bromine, Bromides of Alkalies. Chloralhydrate,
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SAMPLES AND QUOTATIONS ON APPLICATION.
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THE ONLY PERFECT ENEMA OBTAINABLE.

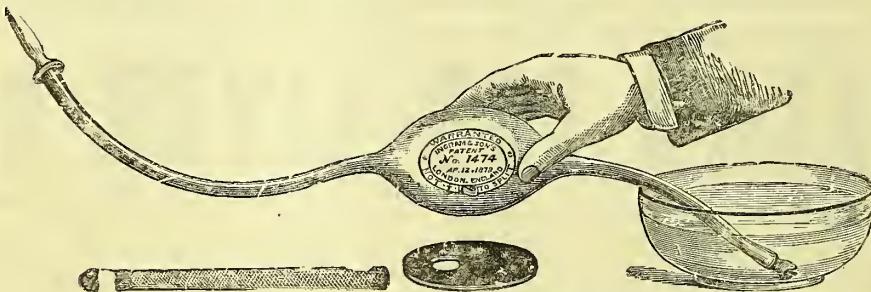
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(BY ROYAL LETTERS PATENT).

Made without Seams or Ribs by our Patent Process of dipping in a solution of India Rubber, thus adding great strength and durability.

NONE GENUINE UNLESS STAMPED WITH NO. OF PATENT 1474.

**CAUTION.—The only
Enema made without
Ribs.**



WARRANTED NOT TO SPLIT.

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INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is perfectly smooth on the surface, will not become hard or sticky, will not leak, and will not admit air while injecting or refilling. Specially prepared to resist the heat of tropical countries.

The great superiority of **INGRAM'S IMPROVED PATENT SEAMLESS ENEMA** over all others has given rise to VARIOUS IMITATIONS, and it has become imperative that the Patentees should, in order to PREVENT DECEPTION, explain the PROCESS OF MANUFACTURE OF THEIR ENEMA and the MODE OF MANUFACTURE OF IMITATIONS thereof, as they have UNDENIABLE PROOF that INFERIOR ENEMAS are positively BEING SOLD as their "ADVERTISED" PATENT SEAMLESS ENEMA.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is made by a NEW PATENT PROCESS, viz.: By repeated dipping in a solution of India Rubber until the required substance is attained. This process adds greatly to its STRENGTH and DURABILITY, and, at the same time, dispenses WITH ALL SEAMS, which, as is well known, are weak points in an Enema. This improved mode of manufacture (the result of long study and experience) enables the Patentees to produce a PERFECT ENEMA WITHOUT SEAMS, thus overcoming the great fault to be found in ALL other Enemas, viz.: SPLITTING AND LEAKING, which has always been a source of trouble.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA is fitted with IMPROVED VALVES, which prevent the admission of air with the fluid and CAN at any time BE REPAIRED, if necessary.

CAUTION.—Imitations of **INGRAM'S IMPROVED PATENT SEAMLESS ENEMA** are made of several pieces of Sheet India Rubber, which are cemented together and shaped in a mould, THUS PRODUCING RIBS ON THE SURFACE, and ENEMAS SO MANUFACTURED ARE ALWAYS LIABLE TO SPLIT AND LEAK AT THE SEAMS, AND THUS TO BECOME QUITE USELESS.

INGRAM'S IMPROVED PATENT SEAMLESS ENEMA may be distinguished from ALL IMITATIONS by its ENTIRE FREEDOM FROM RIBS OF ANY DESCRIPTION on its surface, and by having an IMPROVED METAL PIN VALVE at the suction end A; and it is acknowledged to be the ONLY PERFECT ENEMA OBTAINABLE.

Patented in England, No. 1474, April 12, 1878; in France, No. 126,909, October 11, 1878; and in America, No. 212,939, March 4, 1879.

To be obtained of all Surgical Instrument Makers, Druggists' Sundriesmen, Chemists and Druggists, In the three following qualities:—

- No. 1a. Highly Polished, in Red, Green, Blue, Black, or White.
- No. 1b. Unpolished, in Red, Green, Blue, Black, or White.
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Favourably noticed in "British Medical Journal," December 18, 1879; in the "Lancet," January 8, 1880; and in "British Medical Journal," September 30, 1882.

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A PERFECT CEMENT.

MENDS EVERYTHING:

Wood, Glassware, China, Earthenware, Crockery,
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LARGEST BOTTLE. BEST VALUE.

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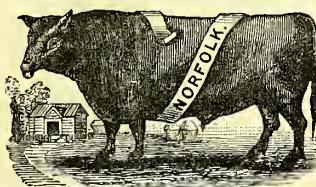
Supersedes all others, and lasts ten times as long as ordinary Oils.

It is the best, most economical, and perfect lubricant ever produced for all kinds of Carriages, Omnibuses, Cars, Cabs, Carts, Rullies, Waggons, and every description of Agricultural Implements, Steam Threshing Machines, Portable and Traction Engines, &c.

It is invaluable as a Healing Ointment, and for Skin Diseases in animals it is the best remedy known.

As a Harness Oil it has no equal, also for softening, preserving, and waterproofing Carriage Tops, Leather Aprons, &c., making them much more durable, and giving them an appearance almost equal to new. MANUFACTURED BY

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Special Quotations to Shippers and large Buyers. Agents Wanted.



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I'm going a milking Sir she said.—
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They are, thanks to DAY & SONS, Sir she said.—

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60 o.p., 20/3 per gall.; 56 o.p., 19/9 per gall.

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Further allowance for quantity. STEAM STILLS ONLY.

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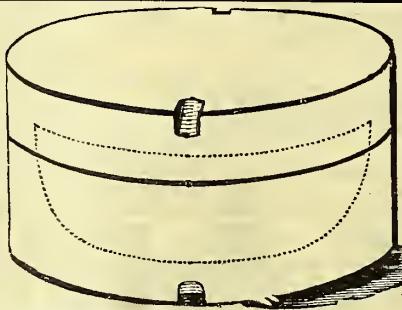
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*Are claimed to be the most perfect
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ORDINARY THICKNESS	1 dr.	2 dr.	½	¾	1	1½	2	3	4	6	8	ounces.
THIN for DISPENSING—	1/6	1/6	1/6	1/7	1/8	1/10	2/2	2/10	3/4	4/6	5/6	per doz.
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FOR COLD CREAM, TOOTH PASTE, &c.

ARTISTIC DESIGNS AND NEW SHAPE JARS.

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Are all sent out washed and dried, ready
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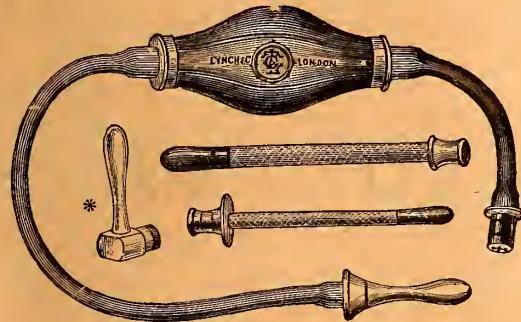
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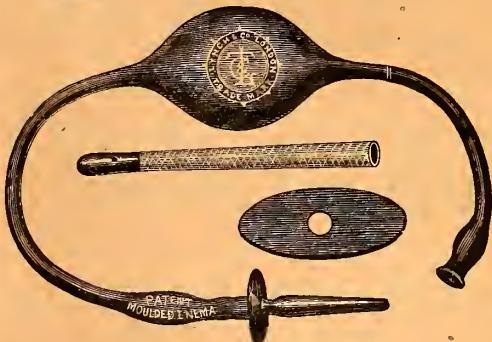
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ENEMAS.

	Per Doz. £ s. d.
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433b. Ditto, with elastic-gum vagina pipe and leather shield	1 6 6
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If fitted with nickel-plated mounts	extra 0 4 0
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435d. LYNCH'S (Higginson's principle), black, green, red or white india-rubber, requiring no metal mounts, in one continuous piece, <i>warranted not to split</i> , fitted with vulcanite rectum pipe, elastic-gum vagina pipe, to plug on, and patent leather shield, in slide cedar box	1 16 0
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